LOWER MINNESOTA RIVER
WATERSHED DISTRICT

September 2022 Administrator report
From: Linda Loomis, Administrator
To: LMRWD Board of Managers

In addition to items on the meeting agenda, the following District projects and issues were addressed during the month:

Other Work

US Army Corps of Engineers River Resource Forum

On Tuesday August 23rd and Wednesday August 24th, I attended the US Army Corps of Engineers 123rd River Resource Forum. This was the first in-person River Resource Forum since the COVID-19 pandemic was declared. The Forum was held in Savage at the City Hall. On Wednesday, the group toured the Bass Ponds project. Construction was completed last October, and the project will be finalized in October of 2022. Operation of the control structures will be turned over to US Fish & Wildlife Services. The goal of the project was to complete control structures that will allow for manipulation of the water levels in Blue Lake, Fisher Lake, Rice Lake (Scott County) and Continental Marsh to enhance habitat.

The USACE was asked to comment on PFAs and noted that they are currently not commenting on PFAs.

Lower Minnesota River East One Watershed One Plan

A website has been established for this process. Input collected at the public kick-off meeting and through the virtual public meeting is being processed. The Steering Committee met on September 1, 2022, and reviewed the input collected so far. The September meeting on the Policy Committee meeting was cancelled to allow additional time to process the input. A Technical Advisory Committee has been formed and its first meeting is schedule for Thursday, September 28, 2022. The LMRWD will be a part of this committee. Hand-outs that were provided at the Steering Committee meeting are attached to this report.

Minneapolis/St. Paul Airport

On August 31, 2022, the LMRWD received the annual notice from the Metropolitan Airport Commission (MAC) Preliminary Capital Improvement Program. Staff will be reviewing the report and working with the MAC for permitting any projects that require LMRWD permits.

Friends of the Mississippi River Lock & Dam Tour

On Wednesday, September 14, 2022, I was able to attend a tour of Mississippi River Lock and Dam #1 hosted by the Friends of the Mississippi River. The purpose of the tour was to inform those in attendance of the USACOE Lock & Dam Disposition Study. With the closure of the Upper St. Anthony Lock & Dam and Minneapolis' Upper Harbor, Lower St. Anthony Lock & Dam and Lock & Dam #1 are no longer necessary. The only navigation through the locks is recreational with limited hours.

There are many concerns and questions that will need to be answered before a decision can be made regarding the status of the locks & dams.

Watershed Plan Projects

Gully Inventory and condition assessment: The final gully report is complete and was received by the Board of Manager at its July 2022 Board meeting. It has been posted to the LMRWD website.
Project website: http://lowermnriverwd.org/projects/mn-river-corridor-management-project

Eden Prairie Area #3 Stabilization: The City of Eden Prairie received notice from the MPCA that it can decommission the pond that is contributing to the erosion at Area #3. A site visit has been scheduled for October.
Project website: http://lowermnriverwd.org/projects/mn-river-corridor-management-project

East Chaska Creek: (Carver County Watershed Based Funding): This project is complete and will be wrapped up in the next couple of months.
Project website: http://lowermnriverwd.org/projects/east-chaska-creek-bank-stabilization

Schroeder Acres Park (Scott County Watershed Based Funding): This project was proposed to look at the Eagle Creek Sub-watershed. The report is complete and has been posted to the LMRWD website. The LMRWD has not received the final information from the City of Savage needed to close out the grant that was received for this project. This is the last project under the 2019 Watershed Based Implementation Funding grant to be completed.
Project website: http://lowermnriverwd.org/projects/schroeder-acres-parkeagle-creek-sub-watershed-stormwater-study

Shakopee Downtown BMP Retrofit (Scott County Watershed Based Funding): This project is complete, and the grant funds have been released. The final report has been posted to the LMRWD website.
Project website: http://lowermnriverwd.org/projects/targeted-bmps-downtown-shakopee

PLOC (Prior Lake Outlet Channel) Restoration (Scott County Watershed Based Funding): This project is complete, and the grant funding has been released. The only project for which reporting has not been completed is the Schroeder's Acres Park Project done by the City of Savage. Project website: http://lowermnriverwd.org/projects/prior-lake-outlet-channel-realignmentwetland-restorationhis

Hennepin County Chloride Project (HHCl) (Hennepin County Watershed Based Funding): This group met virtually on September 8, 2022. An update on work that has been done since the last meeting was presented. A website is being developed with tools everyone can use to educate the public about salt use and how to reduce the amount of salt being used by everyone. The website centers around the *Low Salt, No Salt Minnesota* campaign developed for. The tag line for the campaign is "Clearing a path to safety, savings & sustainability". The website will feature YouTube videos, power point slide presentations for everyone to use and Train the Trainer sessions. It is in beta testing right now. The group decided that the remainder of the grant will be used to purchase ice scrapers (recommended by public works staff from the City of Edina) to be given out the public.

The Minnesota River grant received an application from a party that has a contract with the Metropolitan Council to maintain park & ride locations of Metro Transit. The grant application is for $20,000 to purchase equipment to apply brine to the park & ride station at the Mall of America and other locations that the company has a contract to maintain. We also received an inquiry from a Homeowners Association (consideration of a LMRWD Cost Share Application is on the September agenda) that is planning to redesign its exterior spaces to address winter maintenance and reduce the need to salt to keep surfaces ice free. The MN River group is considering whether or not this request meets the purpose of the grant program. This group consists of Riley Purgatory Bluff Creek WD, Nine Mie Creek WD, the LMRWD and the Richfield Bloomington WMO.

Vegetation Management Plan: No new information to report since the last update.

Sustainable Lake Management Plan: Trout Lakes: There is no new information to report since the last update.

Spring Creek Cost Share: A report on this project is included with the September 21, 2022 meeting materials.
Project website: http://lowermnriverwd.org/projects/spring-creek

West Chaska Creek Re-meander: No new information to report since the update.
Project website: https://storymaps.arcgis.com/stories/1695a2cf90b44ddba730aad399196405

Seminary Fen Ravine Restoration Area C2: There is no new information on this project since the last update. The LMRWD is waiting for the City to take the next step. Here is a link to the feasibility report.

MN River Corridor Plan: On Wednesday, September 7, 2022, the LMRWD hosted the last meeting of LMRWD partners to validate the input collected so far and add anything partners think might have been left out. In addition, the LMRWD arranged for the group to paddle around Pike Island (Dakota: Wita Tanka). Box dinners were provided afterward. The weather was great and LMRWD staff will now use the input collected to draft a report. A report is included with the September 21, 2022 meeting materials.

Upcoming meetings/events

Managers are invited to attend any of these meetings. Most are free of charge and if not the LMRWD will reimburse registration fees.

- UMWA monthly meeting – Thursday, September 15, 2022, Lilydale Pool & Yacht Club
- Lower MN River East 1W1P – Technical Advisory Committee meeting 1:00 to 4:00pm, Wednesday September 28, 2022, Scott SWCD offices; Steering Committee meeting – 10:00 am to 1:30 pm, Thursday, October 6, 2022; Policy Committee meeting 3:00 to 5:00 pm, Thursday, October 20, 2022;
- LMRWD Citizen Advisory Committee meeting – Tuesday, October 4, 2022, 9:00 am
- 2022 MN Water Resources Conference – October 18 & 19, St. Paul River Centre
- Metro MAWD – Tuesday, October 18, 2022, 7:00pm

Drinking Water Supply

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
MDH Priority Letter	Prioritize Drinking Water Supply Management Areas (DWSMA) in the Lower Minnesota River East 1W1P. DWSMA boundaries establish a protection area through an extensive evaluation that determines the contribution area of a public water supply well, aquifer vulnerability and provide an opportunity to prioritize specific geographic areas for drinking water protection purposes.	Yes	
MDH Priority Letter	The MDH has developed several guidance documents to manage impacts to drinking water from specific potential contaminant sources. Topics include mining, stormwater, septic systems, feedlots, nitrates, and chemical and fuel storage tanks.	Yes	
MPCA Priority Letter	A priority to protect drinking and groundwater sources especially in Ottawa, Sharon and Tyrone townships in Le Sueur County were also mentioned by the work group.	Yes	
Montgomery WHPP Part 1 - 2006	Well #5 37.21 Million gallons/year.	No	well 5 (703522)
Montgomery WHPP Part 1 - 2006	Well #6 44.0 million gallons/year.	No	well 6 (703523)
City of Belle Plaine Wellhead Protection Plan	City obtains its drinking water from, two primary wells, City Wells No. 3 [155.7 MGY] and 4 [270.3 MGY].	No	City well 3 and 4
City of Le Sueur 2020 Comprehensive Water Plan	[4 active municipal wells no.3 (QWTA), 5 (QWTA), 6 (Wonewoc), and 7 (Mt. Simon).]	Yes	Quaternary Water Table Aquifer, Wonewoc Aquifer, Mount Simon Aquifer, wells 3, 5, 6, and 7
City of Le Sueur 2020 Comprehensive Water Plan	The design aeration capacity [of WTP] will need to be increased to meet the 2040 maximum day demand of 1,617gpm. The design filtration capacity should be increased to meet the 2040 maximum day demand of 1,617 gpm to a loading rate of 2.81 gpm/ft2.	Yes	
City of Le Sueur 2020 Comprehensive Water Plan	Evaluates options for new water supply, treatment, transfer, distribution system, quality, operations, and storage alternatives.	No	
City of New Prague Wellhead Protection Plan Part 1	These two bedrock aquifers appear adequate to meet the City's current and future water demand. There are no known, groundwater-use conflicts between the City and other parties. The quality of the groundwater in the two source water aquifers is good and free of harmful contaminants and pollutants. All 5 wells are not vulnerable to contaminants. 10 year time of travel.	No	Bedrock source water aquifers: Franconia-Ironton-Galesville Aquifer and the Mount Simon-Hinckley Aquifer. ~ Municipal wells: 2,3 & 5 (FIG) and 4 (Simon) and 1 (both).
City of New Prague Wellhead Protection Plan Part 2	The City does however, anticipate the need for at least one additional public water supply well in the next 1-3 years.	Yes	
Shakopee Mdewakanton Sioux Community Groundwater Protection Plan	The increase in the use of consumptive water supplies is a primary concern as it relates to the availability of sufficient water supplies to meet Community needs. The conversion to medium and high density urban housing will require additional water but the city of Prior Lake plans to meet these needs with the current system.	No	Jordan aquifer, Ironton-Galesville aquifer

City of LeSueur Part 2 WHPP 2016-2026 and Appendices	The DWSMA consist of about 146 acres of highly erodible soil, of the total 735 acres - approximately 20 percent - present a concern to the drinking water supply.	Yes	Quaternary Water Table Aquifer, Wonewoc Aquifer, Mount Simon Aquifer
City of LeSueur Part 2 WHPP 2016-2026	The City is planning to site a new well.	No	Quaternary Water
Kickoff Meeting	Adequate drinking water supply - Ranked 3 of 6 for groundwater concnerns at Kickoff Meeting		

Groundwater Quality

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
DNR Priority Letter	Working to protect groundwater sources and recharge areas is essential for a sustainable water supply for today and future generations	Yes	
BWSR Priority Letter	Address drinking water quality issues present in the watershed as protection of drinking water is critical to ensure the long-term health of people.	Yes	
BWSR Priority Letter	Although a Groundwater and Restoration Strategies Report (GRAPS) will not be developed for this watershed at this time, MDH has committed to providing access to relevant state agency data which should be reviewed and considered by the Partnership.	Yes	
BWSR Priority Letter	Consider strategies in priority areas such as vulnerable groundwater areas and Drinking Water Supply Management Areas. Using existing data and reports and also working with drinking water/groundwater experts are methods that could be used to assist local governments in developing drinking water implementation strategies.	Yes	
MDA Priority Letter	The MDA has identified townships throughout the state that are vulnerable to groundwater contamination and have significant row crop production. Scott, Le Sueur, and Rice counties participated in the TTP.	Yes	
MDA Priority Letter	Within the DWSMA, 5 townships were involved in the TTP: Jackson, Louisville, Sand Creek, and St. Lawrence in Scott County; and Ottawa Township in Le Sueur County. Among these townships, none were identified as high nitrate areas (greater than 10% of wells above 10 mg/l) Ottawa township did exceed 10%, however it was not deemed a high nitrate area due to the low number of wells in the final sample.	Yes	
MDH Priority Letter	Prioritize Sealing Abandoned Wells. Unused, unsealed wells can provide a conduit for contaminants from the land surface to reach the sources of drinking water. This activity is particularly important for abandoned wells that penetrate a confining layer above a source aquifer.	Yes	
MDH Priority Letter	Sealing wells is a central practice in protecting groundwater quality, however when resource dollars are limited it is important to evaluate private well density to identify the populations most at risk from a contaminated aquifer.	Yes	
MDH Priority Letter	Prioritize Protection of Private Wells. Many residents of Lower Minnesota River East rely on a private well for the water they drink. However, no public entity is responsible for water testing or management of a private well after drilling is completed. Local governments are best equipped to assist private landowners through land use management and ordinance development, which can have the greatest impact on protecting private wells.	Yes	
MDH Priority Letter	Watershed models used for prioritizing and targeting implementation scenarios in the 1W1P, whether PTMapp, HSPF-Scenario Application Manager (SAM) or others, leverage GIS information and/or digital terrain analysis to determine where concentrated flow reaches surface water features. While this is an effective approach for targeting surface water contaminates, it does not transfer to groundwater concerns because it only accounts for the movement of water on the land's surface.	Yes	
MDH Priority Letter	Unfortunately, targeting tools are not currently available to model the impact on groundwater resources. The Minnesota Department of Health suggests using methodologies applied by the agency to prioritize and target implementation activities in the Source Water Protection program.	Yes	

Groundwater Quality

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Montgomery WHPP Part 1 - 2006	The aquifer used by the water supplier is considered to exhibit a low sensitivity to potential contamination.	No	Franconia-Ironton Galeswille aquifer
Montgomery WHPP Part 1 - 2006	No tritium was detected in well water (water being pumped been in aquifer longer than year 1953) (no direct infiltration from precipitation). Covered by approximately 200 ft clay-rich glacial deposits and bedrock.	No	Two primary wells: well 5 (703522) and (well 6 (703523). Two emergency backup wells: well 3 (409637) and well 4 (440068). Franconia-Ironton Galeswille aquifer
Montgomery WHPP Part 1 - 2006	Principle means by which contamination may migrate to the aquifer used by the City of Montgomery is via other wells that reach or penetrate to the same depth as the city's wells.	No	Franconia-Ironton Galeswille aquifer
Montgomery WHPP Part 1 - 2006	Montgomery wells exhibit an "L" score of 20	No	Two primary wells: well 5 (703522) and (well 6 (703523). Two emergency backup wells: well 3 (409637) and well 4 (440068).
Scott SWCD Comprehensive Plan 2018-2027	[For the most part groundwater quality is good except for] isolated cases of elevated nitrate levels in areas of high aquifer vulnerability.	No	
Scott Water Management Organization 2019-2026 Comprehensive Water Resources Management Plan	Where shallow lakes are predominant, and where terraces along the Minnesota River have shallow depths to bedrock and are highly susceptible to groundwater contamination.	No	Minnesota River
City of Le Center Wellhead Protection Plan	[Primary wells used for city water supply are wells no. 1, 3, and 4.] The vulnerability of the city wells is considered low, or non-vulnerable. [There are 3 active municipal wells labeled as a potential contamination source (low risk).] The aquifer contains water that has no detectable levels of tritium or human-caused contamination.	No	Prairie Du Chien-Jordan Aquifer System
City of Le Center Wellhead Protection Plan	Goal: Assess the impact on the City's aquifer from existing and planned wells within the DWSMA.	No	Prairie Du Chien-Jordan Aquifer System
City of Le Center Wellhead Protection Plan	Goal: Maintain water quality and integrity of the municipal wells.	No	Prairie Du Chien-Jordan Aquifer System

Groundwater Quality

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Water Plan Implementation Plan 2015-2019 (PDF) - Rice County	Provide support on source water protection and general ground water educational efforts	No	Cannon River, Zumbro River, Lower Minnesota River
Water Plan Implementation Plan 2015-2019 (PDF) - Rice County	Assist in Well Sealing Effort	Yes	Cannon River, Zumbro River, Lower Minnesota River
Shakopee Mdewakanton Sioux Community Groundwater Protection Plan	Jordan aquifer wells (MUW #554090 and #525938) were found to have a vulnerability rating of moderate. Surficial geology around those wells lacks a consistent protective layer, but age dating indicates slow recharge.	No	Jordan aquifer
Shakopee Mdewakanton Sioux Community Groundwater Protection Plan	The Ironton-Galesville aquifer well (MUW #253021) was found to be non-vulnerable due to the extensive protection offered by the overlying St. Lawrence Formation and the upper part of the Franconia Formation.	No	Ironton-Galesville aquifer
Shakopee Mdewakanton Sioux Community Groundwater Protection Plan	In general, the northern portion of the Community is characterized by high infiltration and low runoff potential. The opposite is true for the southern Community, where very high runoff rates lead to very low infiltration.	No	Jordan aquifer, Ironton-Galesville aquifer
Shakopee Mdewakanton Sioux Community Groundwater Protection Plan	Levels of nitrate+nitrite, pathogens, VOCs, SOCs and IOCs are consistently below EPA limits for drinking water in all public water supply wells.	No	Jordan aquifer, Ironton-Galesville aquifer
Shakopee Mdewakanton Sioux Community Wellhead Protection Plan	There are no current threats to groundwater in this area; however, population growth and or prevent groundwater shortages and contamination in the future.	No	Jordan aquifer, Ironton-Galesville aquifer
Shakopee Mdewakanton Sioux Community Wellhead Protection Plan	Water quality data is collected electronically [for the 2 lakes and 5 streams in the Community] with the aid of a Hydrolab, measured parameters include temperature, pH, specific conductivity, total dissolved solids, dissolved oxygen, oxidation-reduction potential, and turbidity. Physical water samples are brought to an EPA certified lab and analyzed for Chlorophyll-a, Ammonia, Total Kjeldahl Nitrogen, Nitrate, Nitrite, Total Phosphorus and Ortho-phosphorus. Although all surface waters appear to be impacted by surrounding land uses, this has not resulted in any detectable groundwater contamination.	No	Jordan aquifer, Ironton-Galesville aquifer
City of LeSueur Part 2 WHPP 2016-2026 and Appendices	There are two known wells located within the high vulnerability area and one in the moderate vulnerability. The city will explore opportunities to seal these and other unknown / unused wells identified within the DWSMA.	No	Quaternary Water Table Aquifer, Wonewoc Aquifer, Mount Simon Aquifer
City of Le Sueur 2020 Comprehensive Water Plan	[Well 5 is highly vulnerable to contamination due to high geologic sensitivity and a detectable concentration of nitrate.]	Yes	well 5

Groundwater Quality

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
City of Le Sueur 2020 Comprehensive Water Plan	[Well 3 is highly vulnerable due to its close proximity to well 5.]	Yes	well 3 and 5
City of Le Sueur 2020 Comprehensive Water Plan	All of the City's wells exceed the regulatory limit for iron and manganese. However, it does not exceed the standard to the point where treatment is not an option, and is therefore still an acceptable water source. To address this issue the City pumps all raw water to the WTP to remove the iron and manganese prior to pumping it to the distribution system.	Yes	Quaternary Water Table Aquifer, Wonewoc Aquifer, Mount Simon Aquifer, wells 3, 5, 6, and 7
City of LeSueur Part 2 WHPP 2016-2026 and Appendices	Detectable levels of nitrate levels have been found on wells two and five that would indicate influence from surface activities.	No	Quaternary Water Table Aquifer, Wonewoc Aquifer, Mount Simon Aquifer
City of Belle Plaine Wellhead Protection Plan	Groundwater samples collected from the city supply wells, test wells, and other surrounding high capacity wells shows elevated chloride, nitrates, iron, and manganese are present in the sand and gravel aquifer.	No	Quaternary Buried Artesian Aquifer
City of Belle Plaine Wellhead Protection Plan	High iron and manganese concentrations were detected in wells no. 1 and 3, test well no. 1 and the O'Brien well.	No	wells no. 1 and 3, test well no. 1 and the O'Brien well.
Scott County Groundwater Report Review of Local Monitoring Efforts	No pesticides, industrial contaminants, or violations for nitrate in 2014 and 2015 of tested wells in Scott County	No	
Scott County Groundwater Report Review of Local Monitoring Efforts	Of the 67 nitrate samples [collected by Scott SWCD of private wells], 53 tested below detection limits of 0.1 or 0.2 mg/L. Only three nitrate samples tested above 1.0 mg/L.	No	
Kickoff Meeting	Drinking water safety - high arsenic - Ranked 5 of 6 for groundwater concnerns at Kickoff Meeting		
Kickoff Meeting	Drinking water safety - high nitrates -- Ranked 4 of 6 for groundwater concnerns at Kickoff Meeting		
Kickoff Meeting	Drinking water safety - high bacteria - Ranked 6 of 6 for groundwater concnerns at Kickoff Meeting		
Kickoff Meeting	Locaitons of Conern: Groundwater quality		
Kickoff Meeting	Locaitons of Conern: Drainage, groundwater quality and quantity in Belle Plain and Jordan area		Belle Plain and Jordan

Groundwater Quantity

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Metropolitan Council Priority Letter	Pursue reuse of wastewater and stormwater to offset demands on groundwater supplies.	Yes	
Metropolitan Council Priority Letter	Providing an adequate water supply for the region	Yes	
Water Plan Implementation Plan 2015-2019 (PDF) - Rice County	Assist in County-wide Water Conservation Efforts	No	Cannon River, Zumbro River, Lower Minnesota River
Montgomery WHPP Part 1 - 2006	Future pumping 57.7 million gallons/year/well	No	Two primary wells: well 5 (703522) and (well 6 (703523).
Kickoff Meeting	Aquifer recharge rates - Ranked 2 of 6 for groundwater concnerns at Kickoff Meeting		

Infiltration & Recharge

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
City of Prior Lake Surface Water Management Plan & Appendices	Goal: To promote groundwater protection and recharge.	Yes	Prior Lake, Spring Lake, Fish Lake, and the other lakes and wetlands within the city of Prior Lake

Protect Groundwater Resources

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Metropolitan Council Priority Letter	Issues concerning the interaction of surface water and groundwater in the watershed	Yes	
MDA Priority Letter	One activity stemming from the 2015 NFMP is implementation of the Groundwater Protection Rule, which (among other things) identifies vulnerable area where fall nitrogen fertilizer application is restricted. There is limited area in the watershed where fall restrictions apply.	Yes	
MDA Priority Letter	The Groundwater Protection Rule also responds to DWSMAs with high nitrate levels in the public supply wells. In this watershed, the Shakopee DWSMA is impacted by the rule, however, due to the low amount of agricultural land in the high vulnerability area of the DWSMA, MDA has decided not to implement the rule in this DWMSA.	Yes	
Lower Minnesota River Watershed District Water Management Plan 2018-2027	Since most District's residents receive their drinking water from these deeper groundwater supplies, groundwater quality protection is of great concern.	Yes	
Scott Water Management Organization 2019-2026 Comprehensive Water Resources Management Plan	Goal 3: Groundwater Management. To protect groundwater quality and supply		
Kickoff Meeting	Surface water to groundwater connections - Ranked 1 of 6 for groundwater concnerns at Kickoff Meeting		

Other - Groundwater

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Kickoff Meeting	Groundwater - Ranked 1 of 5 (27%) of resouce concerns of prioritizing investments at Kickoff Meeting		

Aquatic Habitat

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
DNR Priority Letter	Groundwater protection may also increase the resilience of trout in Eagle Creek, an important cold water stream in the watershed.	Yes	Eagle Creek
DNR Priority Letter	Loss of upstream-downstream connectivity by dams, perched culverts and other structures prevents fish and other aquatic organisms from migrating to more desirable habitat during periods of low flow, temperature stress and spawning.	Yes	
DNR Priority Letter	Improving upstream-downstream connectivity is important for the health of fish populations and other aquatic species.	Yes	
DNR Priority Letter	Asses low head dam on Le Sueur Creek between Fox Hollow Road and Lexington Road	Yes	Le Sueur Creek
DNR Priority Letter	Asses weir on Forest Prairie Creek, at the crossing with 320th Street	Yes	Forest Prairie Creek
DNR Priority Letter	Asses low head dam on Forest Prairie Creek, immediately downstream of Tyrone Road	Yes	Forest Prairie Creek
MPCA Priority Letter	Aquatic life use impairments within the watershed are complex.	Yes	
MPCA Priority Letter	Biotic impairments are a result of nonpoint source pollution and localized stress linked to poor habitat condition and altered hydrology.	Yes	
MPCA Priority Letter	High nitrogen and phosphorus levels are likely impacting fish and macroinvertebrate communities in the southern part of the watershed.	Yes	
MPCA Priority Letter	Stabilizing hydrology, increasing riparian buffer width, and stabilizing stream banks would greatly help the in-stream habitat.	Yes	
MPCA Priority Letter	Aquatic Macro-invertebrate bio assessment: 19 impairments	Yes	
MPCA Priority Letter	Fish bio assessment: 28 impairments	Yes	
MPCA Priority Letter	Poor habitat: stressor for 18 reaches	Yes	
MPCA Priority Letter	Restoring healthy channels and riparian areas of streams and ditches throughout the watershed offers critical habitat, improves water quality, and has the potential to buffer impacts of other stressors.	Yes	
City of Prior Lake Surface Water Management Plan & Appendices	Goal: To protect and enhance fish and wildlife habitat.	Yes	Prior Lake, Spring Lake, Fish Lake, and the other lakes and wetlands within the city of Prior Lake
City of Prior Lake Surface Water Management Plan & Appendices	Fish bioassessment impairments (Spring Lake and Lower Prior Lake), potential future impairments	No	Lower Prior Lake, Spring Lake
City of Savage Water Resource Management Plan-Draft	Impacts of Stormwater Quality on Fish and Wildlife Resources: Potential impacts to Eagle Creek	No	Eagle Creek
Sand Creek TMDL Vol 1	Sand Creek from the mouth to confluence with Porter Creek is impaired for aquatic life due to turbidity and fish Index of Biotic Integrity (IBI).	No	Sand creek
Sand Creek TMDL Vol 1	Unnamed tributary (Picha Creek) to Sand Creek (near Louisville Swamp) is impaired for aquatic life due to fish IBI	No	Picha Creek
Sand Creek TMDL Vol 1	Porter Creek from its headwaters to Sand Creek impaired for aquatic life due to turbidity.	No	Porter Creek

Aquatic Habitat

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Sand Creek TMDL Vol 1	Raven Creek from the East Branch of Raven Creek to Sand Creek impaired for aquatic life due to chloride	No	Raven Creek
Sand Creek TMDL Vol 1	East Branch of Raven Creek from the headwaters to Raven Creek impaired for aquatic life due to chloride	No	East Branch Raven Creek
Sand Creek TMDL Vol 1	Sand Creek South Line to Raven Creek impaired for aquatic life due to turbidity and chloride	No	Sand Creek South Line
Sand Creek TMDL Vol 1	South Creek from Raven Creek to Porter Creek impaired for aquatic life due to turbidity	No	South Creek
Lower Minnesota River Watershed Monitoring and Assessment Report	84% of stream reaches assessed for aquatic life failed to meet standards	Yes	
Lower Minnesota River Watershed Monitoring and Assessment Report	57% of lakes assessed for aquatic life failed to meet standards	No	
Lower Minnesota River Watershed Monitoring and Assessment Report	75% of 87 reaches assessed for fish did not meet standards	No	
Lower Minnesota River Watershed Monitoring and Assessment Report	79% of 70 reaches assessed for macroinvertebrates did not meet standards	No	
Lower Minnesota River Watershed Restoration and Protection Strategy Report	84% of assessed streams showed impairments of aquatic life (e.g., suspended sediment, nutrient enrichment or eutrophication, and impaired biota)	Yes	
Kickoff Meeting	Lack of habitat connectivity - Ranked 4 of 5 for habitat concerns at Kickoff Meeting		
Kickoff Meeting	Other category inputs on habitat survey: What about aquatic habitat?		

Manage, Enhance, and Restore Habitat

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Kickoff Meeting	Loss of habitat (pollinator, trout, riparian, high quality, wetlands, upland, perennial vegetation) - Ranked 2 of 5 for habitat concerns at Kickoff Meeting		
Kickoff Meeting	Abundance and diversity of wildlife - Ranked 4 of 5 for habitat concerns at Kickoff Meeting		
Kickoff Meeting	Tell us more input on habitat survey: There is missing natural areas that contain a large portion of natural cover and biodiversity in Le Sueur county. There is also a lot of privately owned land that supports native land cover.		

Land Development

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
DNR Priority Letter	Tributaries to the Minnesota River, especially along the Minnesota River Valley “bluff line”, are in a state of imbalance due to in part to historic glacial process changes. Although a natural post-glaciation process, human influences from agriculture, drainage, land conversion and development have greatly accelerated the process, causing excess erosion, decreased water quality and poor aquatic habitat.	Yes	Minnesota River and tributaries
DNR Priority Letter	The Minnesota Valley State Recreation Area and State Trail is a high-value multiple-use resource. Recent increases in rainfall, increased runoff/stormwater from urban development, and dramatically increased discharge from the greater Minnesota River Watershed make the trail vulnerable to extended flooding and water quality and erosion issues.	Yes	
Metropolitan Council Priority Letter	The general impact of land use practices on water quantity and quality.	Yes	
Scott Water Management Organization 2019-2026 Comprehensive Water Resources Management Plan	Urban development has altered the landscape and additional development is expected.	No	
City of Prior Lake Surface Water Management Plan & Appendices	Lack of space for stormwater management BMPs	No	
City of Prior Lake Surface Water Management Plan & Appendices	Wetland degradation cause by agriculture or urbanization	No	
City of Prior Lake Surface Water Management Plan & Appendices	Increase in runoff volume as development occurs	No	
City of Prior Lake Surface Water Management Plan & Appendices	Campbell Lake development – potential impacts to sensitive resources for Picha Creek downstream	No	Picha Creek
City of Prior Lake Surface Water Management Plan & Appendices	Accumulation of debris on City streets	No	
City of Savage Water Resource Management Plan-Draft	Impact of Land Use Practices and Development on Water Resource Issues: Runoff from development and agricultural uses may be impacting local lakes and wetlands	No	
City of Savage Water Resource Management Plan-Draft	Impact of Land Use Practices and Development on Water Resource Issues: Lawns and shoreline maintenance practices impacting water quality	Yes	
City of Savage Water Resource Management Plan-Draft	Impact of Land Use Practices and Development on Water Resource Issues: Need to preserve open spaces to promote native species and additional water quality benefits	No	
Lower Minnesota River Watershed TMDL Report Part III	It is especially significant that human-altered landscapes exceed 40% of all the study lakesheds [when above this threshold it is show to significantly alter TP levels].	No	

Preserve Sites of High Ecological Value

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
DNR Priority Letter	Floodplain forests along the Minnesota River form a natural wildlife corridor with diverse animal habitats while also providing considerable flood water storage. Maintaining and improving existing natural areas and locating other areas of high-value native communities for further protection would promote resilience and overall watershed health.	Yes	Minnesota River
DNR Priority Letter	Calcareous fens are rare, distinctive wetlands that depend on a constant supply of groundwater rich in calcium and other minerals. They are one of the rarest natural communities and are threatened, which is why they are protected by law in Minnesota and regulated by the DNR.	Yes	
DNR Priority Letter	Changes in groundwater supply and changes in development pose a risk to [calcareous fens] features. Savage Fen in the Minnesota River Valley is one of these.	Yes	Savage Fen
DNR Priority Letter	Protecting calcareous fens and springs promotes watershed health and ecosystem resilience	Yes	
DNR Priority Letter	Protection of these flood impacted trail areas and related infrastructure is critical to maintaining the habitat, recreational opportunities and ecological functions provided by the state trail and recreation area.	Yes	
City of Belle Plaine Surface Water Management Plan	Green corridors identify high priority areas for preservation, restoration and establishment and establishing them is a planned action. This will be achieved by acquiring easements or rights of first refusal for the areas delineated as green corridors as those properties are developed.	Yes	
Kickoff Meeting	Protection of existing habitat (pollinator, trout, riparian, high quality, wetlands) - Ranked 1 of 5 for habitat concerns at Kickoff Meeting		

Wetland Habitat

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
BWSR Priority Letter	Wetlands are an important part of healthy watersheds and can serve as storage to mitigate heavy rainfall events and provide habitat.	Yes	
BWSR Priority Letter	Should consider including wetland protection (particularly for fens) and restoration efforts in priority areas of the Plan particularly where there have been high rates of loss.	Yes	
MPCA Priority Letter	Calcareous fens, including Savage Fen, are unique features within the bluffs of the lower Minnesota River Valley. Calcareous fens are one of the rarest natural wetland communities and are protected under Minn. Stat. 103G.223. They are very dependent on a constant supply of groundwater, highly susceptible to disturbance, and support numerous rare plant species.	Yes	
City of Prior Lake Surface Water Management Plan & Appendices	Active Wetland Management Plan...No Net Loss of wetland area and function, in accordance with the Wetland Conservation Act (WCA).	No	Wetlands within the city of Prior Lake
City of Prior Lake Surface Water Management Plan & Appendices	Goal: To protect and preserve wetlands through administration of the Wetland Conservation Act.	Yes	Prior Lake, Spring Lake, Fish Lake, and the other lakes and wetlands within the city of Prior Lake
Scott Water Management Organization 2019-2026 Comprehensive Water Resources Management Plan	The SWMO has 8 goals: Goal 1: Wetland Management. To protect and enhance wetland ecosystems and ensure/encourage a measurable net gain of wetland functions and acreage.	No	
Sand Creek TMDL Vol 2	BMPs for Upper Sand Creek: Scott, Rice, and Le Sueur County wetland restorations (16% annual TSS concentration reduction)	No	Upper Sand Creek
Sand Creek TMDL Vol 2	BMPs for Sand Creek Tributary: Scott, Rice, and Le Sueur County wetland restorations (49% annual TSS concentration reduction)	Yes	Sand Creek Tributary
Sand Creek TMDL Vol 2	BMPs for Raven Creek: expansion of agricultural buffer strips to 30 feet (16% annual TSS concentration reduction)	No	Raven Creek
Sand Creek TMDL Vol 2	BMPs for Porter Creek: Scott, Rice, and Le Sueur County wetland restorations and Porter Creek channel stabilizations (32% annual TSS concentration reduction)	No	Porter Creek
Sand Creek TMDL Vol 2	BMPs for Middle Sand Creek: Scott, Rice, and Le Sueur County wetland restorations and Middle Sand and Porter Creek channel stabilizations (35% annual TSS concentration reduction)	No	Middle Sand Creek
Sand Creek TMDL Vol 2	BMPs for Picha Creek: Scott County wetland restoration (13% annual TSS concentration reduction)	No	Picha Creek
Sand Creek TMDL Vol 2	BMPs for Lower Sand Creek: Scott, Rice, and Le Sueur County wetland restorations and Middle Sand and Porter Creek channel stabilizations (11% annual TSS concentration reduction)	No	Lower Sand Creek
Lower Minnesota River Watershed Monitoring and Assessment Report	80% of wetlands in the watershed are in poor to fair condition.	Yes	
Kickoff Meeting	Locaitons of Conern: Future development and the fen. How shall development be guided.		

Invasive Species

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
DNR Priority Letter	Common carp is one of the most damaging aquatic invasive species due to its wide distribution and severe impact on shallow lakes and wetlands. Common carp release phosphorus into the water when feeding, which increases algae growth and turbidity.	Yes	
Cedar Lake and McMahon (Carl's) Lake TMDL Implementation Plan	Aquatic Plant Management Plans will be needed for both Cedar and McMahon Lakes to satisfy permit requirements for macrophyte management on a whole lake basis. [Curlyleaf pondweed can be treated for the whole lake of McMahon, but not Cedar, since Cedar is almost entirely taken over. Carp control of Cedar Lake is put on hold until more research in controlling carp is done. Dredging and lake drawdown do not seem feasible.	Yes	Cedar and McMahon (Carl's) Lakes
City of Savage Water Resource Management Plan-Draft	Impacts of Stormwater Quality on Fish and Wildlife Resources: Vegetation management due to aquatic invasive species	Yes	
Prior Lake Spring Lake Watershed District Water Resources Management Plan 2020-2030	Aquatic invasive species issues: New AIS Can Reduce Water Quality, Common Carp Reduce Water Quality, Overgrowth of Invasive Plants, Recreational & Ecological Hazards	Yes	
Prior Lake Spring Lake Watershed District Water Resources Management Plan 2020-2030	Aquatic invasive species actions: AIS Prevention & Management, Carp Management, AIS Rapid Response Plan	Yes	
Lower Minnesota River Watershed TMDL Report Part II	Continue or implement herbicidal treatments to control curly-leaf pondweed when applicable	No	
Lower Minnesota River Watershed TMDL Report Part II	Continue carp management	No	
Lower Minnesota River Watershed Lakes Stressor Identification Report	Non-native aquatic species impacts were identified as another significant candidate stressor. Several non-native aquatic species (carp, curlyleaf pondweed...) occur within the LMRW and each is associated with a potential risk to the aquatic ecosystem and cost of control	Yes	
Cedar Lake and McMahon (Carl's) Lake TMDL Report	[Cedar Lake will proceed immediately implementing:] 1. Completion of an Aquatic Plant Management Plan 2. External Watershed Treatment 3. Curlyleaf pondweed control 4. Carp Management, [in 5-10 years] 5. Sediment Phosphorus Inactivation [in 5-10 years].	Yes	Cedar Lake
Cedar Lake and McMahon (Carl's) Lake TMDL Report	[McMahon Lake will proceed immediately implementing:] 1. Completion of an Aquatic Plant Management Plan 2. External Watershed Treatment 3. Curlyleaf pondweed control 4. Sediment Phosphorus Inactivation [in 5-10 years].	Yes	McMahon (Carl's) Lake
Spring and Upper Prior Lake TMDL Implementation Plan	Recommended for Spring and/or Upper Prior Lake: Herbicide treatments targeted at curly-leaf pondweed, Rough fish management, Alum treatment, Regulation of motorboat activity in shallow areas, Shoreland survey and shoreland improvements	Yes	Upper Prior Lake and Spring Lake
Spring Lake and Upper Prior Lake TMDL	Common carp are abundant in both Spring and Upper Prior Lakes.	Yes	Spring Lake and Upper Prior Lake
Spring Lake and Upper Prior Lake TMDL	Curlyleaf pondweed is present in these lakes at nuisance to dominant levels.	Yes	Spring Lake and Upper Prior Lake
Sand Creek Section 319 Small Watershed Focus Program Nine Element Plan	Solutions for internal phosphorus control: (Cedar Lake), controlling curly-leaf pondweed, reducing the carp population, and, depending on the success of those efforts, an alum treatment would be considered.	Yes	Cedar Lake

Invasive Species

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Sand Creek Section 319 Small Watershed Focus Program Nine Element Plan	Solutions for internal phosphorus control: (McMahon (Carl's) Lake) includes curly-leaf pondweed control and an alum treatment.	Yes	McMahon Lake
Kickoff Meeting	Spread of invasive species (aquatic and terrestrial) - Ranked 3 of 5 for habitat concerns at Kickoff Meeting		
Kickoff Meeting	Locaitons of Conern: Spring Lake - Main concerns are invasive aquatic vegetation and carp.		Spring Lake

Habitat - Other

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Kickoff Meeting	Habitat - Ranked 2 of 5 (24%) of resouce concerns of prioritizing investments at Kickoff Meeting		

Aquatic Consumption

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
MPCA Priority Letter	Mercury in fish tissue: 11 impairments	Yes	
City of Prior Lake Surface Water Management Plan & Appendices	Fish with high mercury concentrations	No	
Sand Creek TMDL Vol 1	Cedar and McMahon Lakes are impaired for aquatic consumption due to mercury.	No	Cedar and McMahon Lakes
Lower Minnesota River Watershed Monitoring and Assessment Report	Fish tissue monitoring for consumption advisories in the watershed identified that 74% of 46 lakes analyzed for mercury in fish tissue exceeded standards	No	
Lower Minnesota River Watershed Monitoring and Assessment Report	Fish tissue monitoring for consumption advisories in the watershed identified that 46% of 13 lakes tested for PFOS resulted in restricted consumption advisories	No	
Lower Minnesota River Watershed Monitoring and Assessment Report	No new Poly Chlorinated Biphenyls (PCB) impairments were identified in 29 lakes tested	No	

Aquatic Recreation

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Metropolitan Council Priority Letter	Impacts of water management on the recreation opportunities	Yes	
City of Prior Lake Surface Water Management Plan & Appendices	Goal: To protect and enhance water recreational facilities.	Yes	Prior Lake, Spring Lake, Fish Lake, and the other lakes and wetlands within the city of Prior Lake
City of Savage Water Resource Management Plan-Draft	Impacts of Water Quantity or Quality Management Practices on Recreational Opportunities: Fishing opportunities continue to be viable, no action needed	No	
City of Savage Water Resource Management Plan-Draft	Impacts of Water Quantity or Quality Management Practices on Recreational Opportunities: Excess vegetative growth (eutrophication)	Yes	
City of Savage Water Resource Management Plan-Draft	Impacts of Stormwater Quality on Fish and Wildlife Resources: Fishing opportunities continue to be viable, no action needed	No	
Sand Creek TMDL Vol 1	Cedar and McMahon Lakes are impaired for recreation due to excess nutrients	No	Cedar and McMahon Lakes
Lower Minnesota River Watershed Monitoring and Assessment Report	94% of stream reaches assessed for aquatic recreation failed to meet standards	Yes	
Lower Minnesota River Watershed Monitoring and Assessment Report	55% of lakes assessed for aquatic recreation failed to meet standards.	No	
Lower Minnesota River Watershed Restoration and Protection Strategy Report	95% of assessed streams have impaired aquatic recreation (E. coli).	Yes	
Lower Minnesota River Watershed Restoration and Protection Strategy Report	Aquatic recreation impairment of lakes was less common, with 55% of those monitored indicating eutrophication impairment.	No	
Kickoff Meeting	Recreational opportunities adversely impacted due to water and natural resources issues (fishing, boating, hunting, hiking, etc.) - Ranked 2 of 3 for quality of life concerns at Kickoff Meeting (tied count for 2)		
Kickoff Meeting	Recreational opportunities are deemed not safe due to water and natural resource issues (bacteria in waters causing illness, etc.) - Ranked 2 of 3 for quality of life concerns at Kickoff Meeting (tied count for 2)		
Kickoff Meeting	Other category inputs on quality of life survey: Eliminate wake boarding		
Kickoff Meeting	Tell us more input on quality of life survey: Very concerned about the effect of wake boats on the shoreline		
Kickoff Meeting	Tell us more input on quality of life survey: recreational activities negatively impacting water and habitat (wake boats)		
Kickoff Meeting	Tell us more input on quality of life survey: Poor water quality, wakes from fast boats affecting shore and shallot w alters/ plants		

Public Safety

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Scott Water Management Organization 2019-2026 Comprehensive Water Resources Management Plan	Priority: The protection of Human Health and Safety particularly with respect to both a) groundwater protection, and b) exposure to toxics and bacteria in surface waters.	Yes	
Kickoff Meeting	Public safety concerns due to contaminant in drinking water (arsenic, nitrates, bacteria) - Ranked 1 of 3 for quality of life concerns at Kickoff Meeting		
Kickoff Meeting	Other category inputs on quality of life survey: Flooding and river flashiness		

Quality of Life - Other

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Kickoff Meeting	Quality of Life - Ranked 5 of 5 (12%) of resouce concerns of prioritizing investments at Kickoff Meeting		

Data Collection

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Water Plan Implementation Plan 2015-2019 (PDF) - Rice County	Vegetative Buffer Evaluation	No	Cannon River, Zumbro River, Lower Minnesota River
Water Plan Implementation Plan 2015-2019 (PDF) - Rice County	Applying GIS to Waste Management	No	Cannon River, Zumbro River, Lower Minnesota River
City of Le Center Wellhead Protection Plan	Goal: Provide ongoing collection of data to support future wellhead protection efforts	No	Prairie Du Chien-Jordan Aquifer System
City of Prior Lake Surface Water Management Plan & Appendices	Availability and Adequacy of Existing Technical Information to Manage Local Water Resources: Atlas 14 released, Updating storm sewer GIS database, PLSLWD maintains H&H models for City waterbodies	No	
City of Prior Lake Surface Water Management Plan & Appendices	Inspecting and maintaining existing stormwater infrastructure	No	
City of Savage Water Resource Management Plan-Draft	Availability and Adequacy of Existing Technical Information to Manage Water Resources: City needs to continue to track water quality trends of surface waters in City	Yes	
City of Shakopee Local Surface Water Management Plan	[BMP focused on by the city]: Storm sewer system mapping	No	

Modeling

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
City of Savage Water Resource Management Plan-Draft	Availability and Adequacy of Existing Technical Information to Manage Water Resources: City's HydroCAD model is out of date and must be updated	No	
2010 Sand Creek TSS Report	The MPCA impaired waters (303d) list indicated the aquatic impairment is due to turbidity in excess of State of Minnesota standard for a Class 2b water, which is 25 NTU; with the excess turbidity likely caused by TSS in the creek. [10 Different scenarios were modeled to predict the results and improvements of different design suggestions]	Yes	Sand Creek
Cedar Lake and McMahon (Carl's) Lake TMDL Report	[A storm water runoff model and an in-lake mass balance model were conducted.]	No	Cedar and McMahon (Carl's) Lakes

Monitoring

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
DNR Priority Letter	The DNR has completed an evaluation of hydrologic change for the Lower Minnesota River Watershed upstream of Jordan, but tributaries in the Lower Minnesota River East 1W1P planning area likely have similar conditions.	Yes	Minnesota River
Metropolitan Council Priority Letter	Assessment and monitoring of lakes, rivers, and streams to direct adequate management, protection, and restoration of the region's valued water resources.	Yes	
Metropolitan Council Priority Letter	Policies and strategies related to monitoring of area water resources.	Yes	
MDA Priority Letter	Groundwater monitoring is conducted by the MDA and MPCA staff.	Yes	
MDA Priority Letter	Surface water monitoring is conducted by the MDA and local organizations.	Yes	
MDA Priority Letter	The purpose of the MDA's pesticide monitoring program is to determine the presence and concentration of pesticides in Minnesota waters, and present long-term trend analysis. Trend analysis requires a long-term investment in monitoring within the MDA's established networks.	Yes	
MDH Priority Letter	Other suggested activities to protect private wells include: hosting well testing or screening clinics, providing water testing kits, working with landowners to better manage nutrient loss, promoting household hazardous waste collection, managing storm water runoff, managing septic systems, and providing best practices information to private well owners.	Yes	
Montgomery WHPP Extension 2018-2029	Collect a water sample from both wells after first five years of plan implementation and have the water analyzed for tritium content using an enriched analytical technique. Testing results will be used to document that the rate of recharge to the aquifer is not increasing	No	Two primary wells: well 5 (703522) and (well 6 (703523).
Water Plan Implementation Plan 2015-2019 (PDF) - Rice County	Provide assistance in ground water monitoring and data collection	No	Cannon River, Zumbro River, Lower Minnesota River
Scott Water Management Organization 2019-2026 Comprehensive Water Resources Management Plan	[Plans to increase monitoring efforts were put into place and will go into effect.]	No	
City of LeSueur Part 2 WHPP 2016-2026 and Appendices	Gather new information on potential contaminants	No	Quaternary Water Table Aquifer, Wonewoc Aquifer, Mount Simon Aquifer
Scott County Groundwater Report Review of Local Monitoring Efforts	178 public water supply wells located in Scott County (52 community water supply wells and 40 are operated by Scott County municipalities)	No	
Scott County Groundwater Report Review of Local Monitoring Efforts	The DNR currently monitors 18 wells in Scott County for water levels. 19 shallow wells are monitored by the LMRWD for water levels.	No	

Lower Minnesota River Watershed TMDL Report Part II	Continue routine monitoring of the lakes. This would include the collection of water quality data, lake level data, and biological data (such as macrophytes, zooplankton, and phytoplankton).	No	
Kickoff Meeting	Lack of surface waters inventory or monitoring data to determine impairments for their designated use - Ranked 7 of 9 for research, coordination, policy, and outreach concerns at Kickoff Meeting (two concerns tied for 7th ranking)		
Kickoff Meeting	Lack of groundwater inventory or monitoring data - Ranked 9 of 9 for quality of life concerns at Kickoff Meeting		

Data & Studies - Other

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
City of Prior Lake Surface Water Management Plan & Appendices	Prioritizing stormwater pond inspection, maintenance, and performance evaluation	No	
Kickoff Meeting	Research, Coordination, Policy, and Outreach - Ranked 4 of 5 (17%) of resouce concerns of prioritizing investments at Kickoff Meeting		

Contaiminates of Emerging Conern

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
MDA Priority Letter	Priority concerns specific to the Lower Minnesota watershed relate to nitrate and pesticides in surface water.	Yes	
City of New Prague Wellhead Protection Plan Part 2	Water quality monitoring results indicate no evidence of contamination from human origin, such as fuel and fuel break-down products, pesticides, or commercial fertilizer	No	Bedrock source water aquifers: Franconia-Ironton-Galesville Aquifer and the Mount Simon-Hinckley Aquifer. ~ Municipal wells: 2,3 & 5 (FIG) and 4 (Simon) and 1 (both).
City of New Prague Wellhead Protection Plan Part 2	Elevated levels of radium have been detected in the City's Mount Simon-Hinckley Aquifer well (Well 4). The City intends to remove this contaminant though water treatment technologies.	No	Mount Simon-Hinckley Aquifer. ~ Municipal well: 4
City of Prior Lake Surface Water Management Plan & Appendices	Presence of polycyclic aromatic hydrocarbons (PAHs) in stormwater ponds	No	
City of Savage Water Resource Management Plan-Draft	Impacts of Stormwater Quality on Fish and Wildlife Resources: Illegal dumping of hazardous materials into City's storm sewer system	Yes	
City of Savage Water Resource Management Plan-Draft	Identification of Potential Problems which are Anticipated to Occur in the Next 20 Years Based on Growth Projections and Planned Urbanization: Increasing prevalence of polycyclic aromatic hydrocarbons (PAHs) in stormwater ponds	No	
City of LeSueur Part 2 WHPP 2016-2026 and Appendices	Manage potential contaminants	No	Quaternary Water Table Aquifer, Wonewoc Aquifer, Mount Simon Aquifer

Chlorides

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Metropolitan Council Priority Letter	Sources of chloride loading in the watershed and possible measures to mitigate them.	Yes	
MPCA Priority Letter	Six reaches in the Lower Minnesota River-East area are on the 2022 impaired waters list for chloride.	Yes	Minnesota River
MPCA Priority Letter	The major sources of chloride around the state include application of chloride-based salts for winter maintenance activities, residential and commercial water softening, and agricultural inputs.	Yes	
MPCA Priority Letter	Chloride reduction at the source is key to protecting water quality, as there are currently no know economically feasible remediation strategies to remove chloride once it enters the environment.	Yes	
MPCA Priority Letter	Chloride: 6 impairments	Yes	
MPCA Priority Letter	Chloride: stressor for 1 reach	Yes	
City of Prior Lake Surface Water Management Plan & Appendices	Chloride TMDL	No	
City of Belle Plaine Wellhead Protection Plan	Elevated chloride was detested in the O'Brien well and test well no. 1.	No	O'Brien well and test no. 1 well
City of Prior Lake Surface Water Management Plan & Appendices	Elevated levels of chloride	No	
City of Savage Water Resource Management Plan-Draft	Credit River – approved TMDL WLA for E.coli and Chloride	No	Credit River
City of Savage Water Resource Management Plan-Draft	Identification of Potential Problems which are Anticipated to Occur in the Next 20 Years Based on Growth Projections and Planned Urbanization: Elevated chloride levels	Yes	
Lower Minnesota River Watershed TMDL Report Part I	Five samples exceeded the chronic chloride standard (230 mg/L).	No	Minnesota River
Lower Minnesota River Watershed TMDL Report Part I	The dominant source of chloride leading to impairment in the Credit River is from winter deicing activities.	No	Credit River

Reduce Pesticides & Fertilizer Impacts

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
MDA Priority Letter	The MDA began evaluating pesticide presence and magnitude in private residential drinking water wells as part of the Private Well Pesticide Sampling (PWPS) Project in 2014. This is a companion program to the MDA Township Testing Program (TTP).	Yes	
MDA Priority Letter	The same townships sampled in the Township Testing Program were also included in the PWPS within the Lower Minnesota East Watershed. An analysis of the results can be found at the link.	Yes	

Climate Change and Resilience

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
DNR Priority Letter	Annual precipitation has increased by 3.6 inches in the time period from 1991 to present, compared to the time period of 1935 (as far back as we have sufficient records) to 1991.	Yes	
BWSR Priority Letter	Discuss climate change during Plan development.	Yes	
BWSR Priority Letter	Should address how more extreme weather events would have implications for the implementation of restoration and protection 3 strategies. One potential source of information for use in the planning process is the BWSR Climate Resiliency Toolbox.	Yes	
MPCA Priority Letter	Planning should incorporate implementation of practices that address changing weather patterns to help our communities be prepared for extreme weather events.	Yes	
Scott Water Management Organization 2019-2026 Comprehensive Water Resources Management Plan	Storm intensities have increased in Scott County.	No	
Scott Water Management Organization 2019-2026 Comprehensive Water Resources Management Plan	Goal 7: Resiliency. To build a resilient landscape	No	

Engagement Opportunities

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
MDA Priority Letter	The MAWQCP is a voluntary opportunity for farmers and agricultural landowners to take the lead in implementing conservation practices that protect water quality. Participants that implement and maintain approved farm management practices will be certified and in turn obtain regulatory certainty for a period of ten years. This planning program should be included in the 1W1P because it is an opportunity for agricultural producers to evaluate nutrient and field management practices within the watershed.	Yes	
MDA Priority Letter	The MDA surveys farmers through the National Agricultural Statistics Service (NASS). A summary of the survey data is attached. The most recent nitrogen use survey was for the 2014 crop year, specifically the Irrigated and Non-Irrigated sandy soils, Northwestern, Southwestern and West Central BMP regions. The most recent pesticide use survey was from the 2015/2016 crop years.	Yes	
MDA Priority Letter	The AgBMP Loan Program is a water quality program that provides low interest loans to farmers, rural landowners, and agriculture supply businesses. The purpose is to encourage agricultural best management practices that prevent or reduce runoff from feedlots, farm fields, and other pollution problems identified by the county in local water plans.	Yes	
Kickoff Meeting	Lack of educational opportunities for the public (workshops, trainings, hands-on events) - Ranked 4 of 9 for research, coordination, policy, and outreach concerns at Kickoff Meeting		

Landowner Engagement

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Lower Minnesota River Watershed Approach Civic Engagement Project	Lower Minnesota River has a variety of impairments including Turbidity, Fecal Coliform, and PCB in Fish Tissue.	No	Lower Minnesota River
Lower Minnesota River Watershed Approach Civic Engagement Project	A combination of in person and mailed surveys meant to evaluate the values and perspectives of landowners within the watershed.	No	Lower Minnesota River
Lower Minnesota River Watershed Approach Civic Engagement Project	Queenan Productions worked with an innovative farmer to produce a video on inter-seeding cover crops and interviewed stakeholders within the watershed to gather perspectives. Lower Minnesota River Watershed partners, including Rice, Le Sueur, Nicollet, McLeod and Sibley counties, worked together to develop outreach strategies.	No	Lower Minnesota River
Lower Minnesota River Watershed Approach Civic Engagement Project	Meetings were attended by 17 members of the public. Valuable information and insight were gained my LMRW partners.	No	
Lower Minnesota River Watershed Approach Civic Engagement Project	[LMRW partners attended community engagement trainings.]	No	
Lower Minnesota River Watershed Approach Civic Engagement Project	8 interviews of watershed stakeholders performed by Anne Queenan of Queenan Productions.	No	
Lower Minnesota River Watershed TMDL Report Part II	Evaluate opportunities to work with landowners in the direct untreated watersheds in the riparian zones of the lakes.	No	
Kickoff Meeting	Other category inputs on research, coordination, policy, and outreach concerns: SWCD has excellent environmental programs for residents like planting native plants, etc		
Kickoff Meeting	Tell us more input on research, coordination, policy, and outreach survey: Education and outreach opportunities for the general public to visualize and understand direct impacts that citizens can have on the natural resources and watershed, positivity and negatively.		

Public Outreach

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Water Plan Implementation Plan 2015-2019 (PDF) - Rice County	Provide leadership, education, and resources to assist contractors, landowners, LGUs, etc., in developing and implementing sound Best Management Practices	No	Cannon River, Zumbro River, Lower Minnesota River
Water Plan Implementation Plan 2015-2019 (PDF) - Rice County	Educate Public on Sound Storm Water Management Practices	No	Cannon River, Zumbro River, Lower Minnesota River
Scott Water Management Organization 2019-2026 Comprehensive Water Resources Management Plan	Goal 5: Collective Action. To engage the public in ways that inspires them to be willing partners.		
Scott Water Management Organization 2019-2026 Comprehensive Water Resources Management Plan	Public awareness of water resource issues is limited, and a large number of citizens do not believe that they have the ability to implement conservation or that conservation will make a difference.	No	
City of Le Center Wellhead Protection Plan	Goal: Secure protection of the local aquifer through education of property owners within the protection area.	No	Prairie Du Chien-Jordan Aquifer System
City of Prior Lake Surface Water Management Plan & Appendices	Education Program	No	
City of Savage Stormwater Pollution Prevention Plan	The City will develop and implement an educational program that individually addresses each minimum control measure [pollution prevention focused]. To the general public and focused groups such as, development community, contractors, students, landowners, and City staff. [Hold an annual public meeting and keep city council updated]. Consider public input. Impaired waters review process.	No	
City of Savage Water Resource Management Plan-Draft	Impact of Land Use Practices and Development on Water Resource Issues: Need for local water education programs – increase public awareness of local water management and improve quality of stormwater runoff	Yes	
City of Shakopee Local Surface Water Management Plan	[BMP focused on by the city]: Resident education	No	
City of LeSueur Part 2 WHPP 2016-2026 and Appendices	Create public awareness and general knowledge about the importance of WHP for maintaining an adequate and safe drinking water supply	No	Quaternary Water Table Aquifer, Wonewoc Aquifer, Mount Simon Aquifer
Kickoff Meeting	Lack of stakeholder understanding of connections between land use activities and water quality - Ranked 1 of 9 for research, coordination, policy, and outreach concerns at Kickoff Meeting		
Kickoff Meeting	Lack of stakeholder understanding of groundwater issues - Ranked 5 of 9 for research, coordination, policy, and outreach concerns at Kickoff Meeting (two concerns tied for 5th ranking)		

Outreach & Education - Other

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Kickoff Meeting	Research, Coordination, Policy, and Outreach - Ranked 4 of 5 (17%) of resouce concerns of prioritizing investments at Kickoff Meeting		

Policy and Regulation (or Landuse Management)

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Kickoff Meeting	Adequacy of existing regulations and ordinances to address adverse impacts on groundwater, surface water, and natural resource - Ranked 2 of 9 for research, coordination, policy, and outreach concerns at Kickoff Meeting (two concerns tied for second ranking)		
Kickoff Meeting	Lack of resources to track enforcement - Ranked 5 of 9 for research, coordination, policy, and outreach concerns at Kickoff Meeting (two concerns tied for 5th ranking)		
Kickoff Meeting	Inconsistencies in ordinances between partnering LGU's - Ranked 7 of 9 for research, coordination, policy, and outreach concerns at Kickoff Meeting (two concerns tied for 7th ranking)		

Policy and Regulation - Other

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Kickoff Meeting	Research, Coordination, Policy, and Outreach - Ranked 4 of 5 (17%) of resouce concerns of prioritizing investments at Kickoff Meeting		

Collaboration

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Metropolitan Council Priority Letter	Promote greater collaboration, financial support, and technical support in working with partners to address wastewater, water quality, water quantity and water supply issues.	Yes	
MPCA Priority Letter	Collaborative assessment, targeting, and planning is necessary on a subwatershed scale to strategically plan before engaging in stream restoration. Streambank stabilization practices should only be used in appropriate locations (for example threatened infrastructure) due to the natural hydrologic regime being so heavily altered in the LMRW resulting in unstable incised channels.	Yes	
Scott Water Management Organization 2019-2026 Comprehensive Water Resources Management Plan	Upstream portions of the Sand Creek Watershed and eastern areas of the Credit River Watershed are not in the jurisdictional boundary of the SWMO. [Issue because they are adding to the problems in the watershed, but are unable to be managed by the SWMO].	No	
Lower Minnesota River Watershed Approach Civic Engagement Project	Lack of conservation practice adoption is due to: Financial reasons, Need for Technical Assistance, Community leadership	No	
Lower Minnesota River Watershed TMDL Report Part II	Work with cities to identify potential redevelopment and road reconstruction projects that might provide the opportunity to retrofit additional BMPs into the watershed. Additionally, retrofit existing ponds as opportunities arise.	No	
Kickoff Meeting	Lack of coordination with other local, state, federal, and non-profit organizations - Ranked 2 of 9 for research, coordination, policy, and outreach concerns at Kickoff Meeting (two concerns tied for second ranking)		

Amdinistrative Priorities

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
MPCA Priority Letter	Environmental justice means the right of communities of color, Indigenous communities, and low income communities, to the enjoyment of a healthy environment and to fair treatment and meaningful involvement with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies. As part of the 2025 WRAPS update process, the MPCA is planning on making environmental justice concerns a priority. As part of this 1W1P, please consider integrating environmental justice values into the plan.	Yes	
Scott SWCD Comprehensive Plan 2018-2027	[Goals for implementing conservation include:] Promote and support individual capacity for implementing conservation practices that improve soil health and protect water quality, Support our county and local watershed partners' capacity to protect and manage water resources, and Assist residents in achieving regulatory compliance objectives.	No	
Scott SWCD Comprehensive Plan 2018-2027	The SWCD currently employs 12.2 Full Time Equivalents (FTEs). The identified need to implement this plan is 14.8 FTE's, and increase of 2.6 FTE's.	No	
Scott Water Management Organization 2019-2026 Comprehensive Water Resources Management Plan	Using available information to get started on implementation is preferred to postponing action pending additional study and planning.	No	
Scott Water Management Organization 2019-2026 Comprehensive Water Resources Management Plan	Cost of addressing all the water resource issues is undetermined and is likely high.	No	
Scott Water Management Organization 2019-2026 Comprehensive Water Resources Management Plan	Goal 6: Public Investment. To optimize public expenditures and promote efficiency.		
Scott Water Management Organization 2019-2026 Comprehensive Water Resources Management Plan	It is difficult to show the benefits of watershed based improvements over the short term.	No	
City of Prior Lake Surface Water Management Plan & Appendices	Adequacy of Existing Regulations and Programs to Address Adverse Impacts on Local Water Resources: Maintaining and updating ordinances, city has limited funding for water resource projects	No	
City of Savage Water Resource Management Plan-Draft	Adequacy of Existing Regulations to Address Adverse Impacts on Water Resources: City ordinances do not currently address all policies in this plan	No	

Amdinistrative Priorities

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
City of Savage Water Resource Management Plan-Draft	Adequacy of Existing Regulations to Address Adverse Impacts on Water Resources: Variance between hydrologic and geographic boundaries of WDs and WMOs	No	
Cedar Lake and McMahon (Carl's) Lake TMDL Report	It was decided to promote shoreland improvements, conservation on HEL, filters strips, and wetland restoration through the Scott WMO cost share program.	No	Cedar and McMahon (Carl's) Lakes
Cedar Lake and McMahon (Carl's) Lake TMDL Implementation Plan	The tax capacities of the two organizations are not very large. There are less than 50 property owners in the McMahon Lake watershed, and less than 1,000 in the Cedar Lake watershed. Thus, the ability to implement some of the practices, or the rate of implementation, will be dependent on additional State and Federal assistance.	No	Cedar and McMahon (Carl's) Lakes

Altered Hydrology

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Scott Water Management Organization 2019-2026 Comprehensive Water Resources Management Plan	The landscape of the watershed has been significantly altered by agriculture.	No	
MPCA Priority Letter	Seek changes to the landscape that reduce the volume, rates, and timing of runoff and increase the base flows needed to prevent continued and further impairments.	Yes	
MPCA Priority Letter	A primary stressor of the biotic impairments in the watershed is altered hydrology.	Yes	
MPCA Priority Letter	Other pollutants (turbidity, nutrients, bacteria, etc.) are delivered because of altered hydrology.	Yes	
MPCA Priority Letter	Managing the hydrology to provide a consistent base flow is imperative for the survival of the biological communities in the watershed.	Yes	
MPCA Priority Letter	Increasing rainfall infiltration and water retention, and improving riparian conditions are activities that are needed to stabilize hydrology and reduce impairments	Yes	
MPCA Priority Letter	Altered hydrology/ connectivity: stressor for 8 reaches	Yes	

Drainage System Management

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Metropolitan Council Priority Letter	Impacts and mitigation of row crop agriculture and agricultural drainage on water quality and quantity.	Yes	
BWSR Priority Letter	Engage drainage authorities in strategy development because of the number of altered watercourses in the Watershed.	Yes	
MPCA Priority Letter	Priorities identified in the WRAPS include "high impact/mitigating" areas with the potential to mitigate pollutants and stressors when ideally managed or areas with a disproportionately high negative impact when poorly managed. This would include reducing ditch cleanouts of stable channels with connection to a floodplain. Access to floodplains reduces sediment loading from bed and bank erosion, creates aquatic habitat, increases water and sediment storage, and increases nutrient uptake.	Yes	Eagle Creek
Le Sueur County Local Water Management Plan 2020-2026	Maintained drainage systems while sustaining agricultural productivity. Improved artificial drainage water quality, as well as understood that the system is part of a watershed.	No	
Scott Water Management Organization 2019-2026 Comprehensive Water Resources Management Plan	Goal 8: Public Drainage. To create and enable a long term vision for County Ditches		
Water Plan Implementation Plan 2015-2019 (PDF) - Rice County	County Drainage System Management	Yes	Cannon River, Zumbro River, Lower Minnesota River
Lower Minnesota River Watershed Restoration and Protection Strategy Report	While increase in precipitation is one reason for the increase in runoff, Lehart et al. (2011) have concluded that the increase in annual precipitation alone cannot explain the large increase in the average annual stream flows. Changes in soil organic matter (SOM), cropping rotations, drainage and impervious surfaces all have a significant contribution to the increase in runoff.	No	
Kickoff Meeting	Public and private drainage - Ranked 6 of 8 for surface water concerns at Kickoff Meeting		
Kickoff Meeting	Locaitons of Conern: Flooding and drainage		
Kickoff Meeting	Locaitons of Conern: Flooding and drainage increases in peak flows		
Kickoff Meeting	Locaitons of Conern: Controlled tiling		

Erosion & Sediment Control

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
DNR Priority Letter	The two large stream systems within the 1W1P planning area (Sand Creek and Le Sueur Creek) are impaired for suspended sediment. Reducing the sediment load would not only improve aquatic habitat and stability of streams, it would also reduce the overall sediment load to the Minnesota River.	Yes	Sand Creek and Le Sueur Creek
Metropolitan Council Priority Letter	Impact of soil erosion problems on water quantity and quality.	Yes	
MPCA Priority Letter	Reduce and control sediment entering the water bodies of the watershed.	Yes	
MPCA Priority Letter	. Total suspended solids (TSS), and turbidity (measure of water clarity affected by sediment, algae, and organic matter), are common impairments and stressors to aquatic life in the watershed.	Yes	
MPCA Priority Letter	Reducing TSS will also likely reduce how other pollutants are conveyed (phosphorus and bacteria).	Yes	
MPCA Priority Letter	Turbidity; Total Suspended Solids: 7 impairments	Yes	
MPCA Priority Letter	High turbidity/ TSS: stressor for 7 reaches	Yes	
MPCA Priority Letter	Previously channelized streams in prioritized headwater reaches can be remaindered to restore stable conditions, increase stream length, create floodplain accessibility, improve habitat, and decrease sediment.	Yes	
Cedar Lake and McMahon (Carl's) Lake TMDL Implementation Plan	The shoreland of McMahon Lake remains largely unaltered, except one area where significant erosion was identified. Thus, improved shoreland management presents an opportunity for reducing phosphorus from the direct watershed.	No	McMahon (Carl's) Lake
Cedar Lake and McMahon (Carl's) Lake TMDL Implementation Plan	Greatest potential for external phosphorus reductions comes from improved shoreland practices [contact land owners directly], improved conservation on Highly Erodible Lands (HEL), additional filter strips, conversion of agricultural land to rural residential land through the development process [mainly around McMahon Lake], and from the development of Cedar Lake Farms Regional Park [implement native grasses and hardwoods to previous crop fields and shoreline	Yes	Cedar and McMahon (Carl's) Lakes, Sand Creek, Saint Patrick Wetland
Scott Water Management Organization 2019-2026 Comprehensive Water Resources Management Plan	Deposition of till by glaciers and incision by the Minnesota River have created a geologic setting that is naturally highly erosive and very susceptible to increased erosion and mass wasting	No	Minnesota River
Scott Water Management Organization 2019-2026 Comprehensive Water Resources Management Plan	Stability of streambanks and aquatic habitat has been impacted by changes to streamside vegetation, channel alterations, ditching and wetland drainage.	No	
City of Belle Plaine Surface Water Management Plan	[Several construction BMPs and ordinances for erosion control were adopted.]	No	
City of Belle Plaine Surface Water Management Plan	[Goal to] Maintain existing watershed runoff rates [for the ravines] for the 1, 10 and 100-year storm events to preserve the morphology of the streambed, prevent bank failures, and protect the existing vegetation.	No	
City of New Prague Surface Water Management Plan	Major concerns: Streambank erosion, Lack of pipe capacity in the older portions of the City, Neighborhood flooding and flood concerns, Controlling urban drainage into agricultural areas, Preserving agricultural drainage through urban development, Prospective Total Maximum Daily Load (TMDL) implementation	Yes	Major subwatersheds and creeks: Phillip Creek, Raven Stream, Sand Creek. ~ Large DNR wetland (104W). ~ WMOs: Sand Creek,

Erosion & Sediment Control

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

City of Prior Lake Surface Water Management Plan & Appendices	Goals: To prevent soil erosion and sediment discharge into surface water systems through enforcement of the City's MS4 SWPPP and NPDES Construction permit.	Yes	Prior Lake, Spring Lake, Fish Lake, and the other lakes and wetlands within the city of Prior Lake
City of Prior Lake Surface Water Management Plan & Appendices	Erosion and sediment control: Cates Creek (located notes in plan, Section 5 page 5), Erosion issues on City owned parcel, south side Markley Lake, Culvert at north end of Haas Lake under Cty Rd 42	No	Cates Creek, Cty Rd 42
City of Prior Lake Water System Plan Update	Will periodically monitor channels for signs of erosion and where erosion is occurring, identify options and implement stabilization projects	No	Prior Lake, Spring Lake, Fish Lake, and the other lakes and wetlands within the city of Prior Lake
City of Savage Water Resource Management Plan-Draft	Impacts of Erosion and Sedimentation on Water Resources: Water quality in Credit River impacted	No	Credit River
City of Savage Water Resource Management Plan-Draft	Impacts of Erosion and Sedimentation on Water Resources: Improvement opportunities for erosion control at construction sites	No	
Lower Minnesota River Watershed District Water Management Plan 2018-2027	Erosion and its resulting sedimentation are the primary causes of nonpoint source water quality problems on the Minnesota River.	Yes	
Lower Minnesota River Watershed District Water Management Plan 2018-2027	Cropland erosion (most of which is located outside of the District) is a major source of the District's sediment problems.	No	
Lower Minnesota River Watershed District Water Management Plan 2018-2027	Streambank erosion on many Minnesota River tributary streams is driven [mostly] by significant changes in the hydrologic characteristics of the watershed, in and outside of the District.	No	
Lower Minnesota River Watershed District Water Management Plan 2018-2027	Streambank erosion on many Minnesota River tributary streams is driven by the lack of stream buffers	No	
2010 Sand Creek TSS Report	The portion of the watershed located at the Minnesota River bluff line is in geomorphic disequilibrium due to channel incision into the bluff, with the potential to produce high loads of TSS in Sand Creek, especially under high flow conditions. While the channel incision is a natural process of post-glacial landscape formation, recent studies have indicated that human activities such as land cover alteration, agricultural activities, and urbanization have likely accelerated the rate of channel incision and thus increased the sediment load to the creek and the Minnesota River	No	Sand Creek, Minnesota River

Erosion & Sediment Control

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

2010 Sand Creek TSS Report	The portion of Sand Creek at the greatest disequilibrium, thus incising and producing sediment at the greatest rate (called the “knick-point” in this report), is located in the Middle Sand Sub watershed, likely between the City of Jordan and the confluence of Porter Creek with the Sand Creek main channel	No	Sand Creek, Porter Creek
2013 Salisbury and CR6 Ravines Feasibility Study Report	Scott County WMO retained Barr Engineering to prepare a feasibility study targeted at: 1. reducing sediment maintenance needs at County Roads; 2. controlling property damage to land owners from ravine erosion and head cutting; and 3. reducing sediment export to the Minnesota River.	No	Salisbury Hill and County Road 6 Ravines, Minnesota River
2013 Salisbury and CR6 Ravines Feasibility Study Report	For the Salisbury Hill Ravine, Barr recommends a combination of stormwater retention (what might also be called ponding) and detention, channel armoring, and optional grade-control measures	Yes	Salisbury Hill Ravine
2013 Salisbury and CR6 Ravines Feasibility Study Report	For the County Road 6 Ravine, Barr recommends a combination of ponding and detention, channel armoring, and grade-control measures.	Yes	County Road 6 Ravine
2013 Salisbury and CR6 Ravines Feasibility Study Report	(Salisbury) The sedimentation problem has been so severe that frequently the County Road 51 culvert has repeatedly been completely plugged and the road itself covered with sediment. Between 2010 and 2011, County Road 51 was closed 30 days due to sediment issues; and from 2010 to 2012, approximately 10,000 cubic yards of was removed in efforts to keep the road open.	Yes	Salisbury Hill Ravine
2013 Salisbury and CR6 Ravines Feasibility Study Report	Salisbury Hill Road bisects the ravine via a switchback and the high, steep banks in the lower portion of the ravine pose a long-term threat to the road. [sediment leads to Minnesota River and Lake Pepin]	Yes	Salisbury Hill Ravine - Minnesota River and Lake Pepin
2013 Salisbury and CR6 Ravines Feasibility Study Report	The County Road 6 Ravine is located between County Road 6 and County Road 60 (Figure 1-2). Active channel incision and erosion within the ravine has caused large amounts of sediment to be deposited in the channel under the bridge on County Road 6 and on the road itself. From 2010 to 2011, sediment issues caused 22 days of road closure; and from 2010 to 2012, 14,500 cubic yards of sediment were cleared from the channel and road surface in efforts to keep the road open. In 2013, a combination of sediment accumulation and debris jams caused the channel upstream of County Road 6 to divert flow, causing abutment scour damage to bridge constructed in 2012.	Yes	County Road 6 Ravine
2013 Salisbury and CR6 Ravines Feasibility Study Report	Soils are eroding as a result of direct rainfall. [Suggestions focus on slope stabilization, grade control, ponds to reduced peak flow and velocity, and water quality of the ravines]	Yes	Salisbury Hill and County Road 6 Ravines, Minnesota River and Lake Pepin
2015 Sand Creek Near Channel Sediment Feasibility Study Report	The relatively large sediment production impacts riverine habitat and water quality, including Sand Creek and Porter Creek being impaired for aquatic life due to turbidity	Yes	Sand Creek, Porter Creek.
2015 Sand Creek Near Channel Sediment Feasibility Study Report	To improve general stream habitat impairment and meet water quality standards, Scott County is addressing sediment loading from direct bluff and ravine erosion in the Middle Sand Creek and Picha Creek watersheds.	No	Sand Creek, Picha Creek

Erosion & Sediment Control

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

2015 Sand Creek Near Channel Sediment Feasibility Study Report	The primary goal of the desktop assessment was to identify candidate sites where channel, ravine, and/or bluff toe stabilization will significantly reduce erosion and therefore, reduce sediment loads. [Used a prioritization decision matrix to identify the top 6 sites to receive a pilot program improvement]	Yes	Sand Creek, Porter Creek. Priority Sites Selected: Helena-Broadway Bluff, Sawmill Lane Bluff, W 210th St-South Ravine, 210th St W - North Bluff, Highway 8 - Xanadu Bluff, Xanadu-Sawmill Bluff
2015 Sand Creek Near Channel Sediment Feasibility Study Report	Total suspended solid concentrations in Sand Creek are dominated by sediment associated with knickpoint migration in the Minnesota River bluff zone	Yes	Sand Creek, Minnesota River
2015 Sand Creek Near Channel Sediment Feasibility Study Report	It was decided that the best approach to ravine stabilize- action is a two pronged approach targeting both the hydrology through rate and volume control in the upper watershed, and the physical erosion through grade control within the ravines.	Yes	Sand Creek and Priority Sites
Sand Creek TMDL Vol 1	Sand Creek delivered the highest flow-weighted mean concentrations of TSS and Scott County CD 10 delivered the highest flow weighted mean concentrations of nitrate to the Minnesota River (of the metropolitan areas streams assessed) in 2004.	Yes	CD 10 and Sand Creek
Sand Creek TMDL Vol 1	Bluff, Sand and Riley Creeks had the highest pollutant yields (kg/ha) of TSS (of the metropolitan areas streams assessed) in 2004	Yes	Bluff, Sand and Riley Creeks
Sand Creek TMDL Vol 2	There is a significant amount of Highly Erodible Land (HEL) in the watershed	Yes	
Sand Creek TMDL Vol 2	[Sediment control and runoff reduction are high priorities for the watershed]	Yes	
Sand Creek TMDL Vol 2	Most of the TSS originates in the Middle Sand Creek subwatershed.	Yes	Sand Creek
Sand Creek TMDL Vol 2	The SWAT model analysis of proposed management practices indicated that TSS reduction was greatest using a combination of practices that served to restore upland hydrology (through wetland restoration), control field-scale sediment (through expansion of field buffer strips), and stabilize stream channels.	No	
Sediment Accumulation in the Floodplain of the Lower Minnesota River Watershed	The Minnesota River does not have the capacity to carry away all of the sediment delivered to it by its tributaries and therefore the valley has been filling in since shortly after it was created (Wright, 1990)	Yes	Lower Minnesota River
Sediment Accumulation in the Floodplain of the Lower Minnesota River Watershed	Lake Pepin, a riverine lake on the Mississippi River downstream of the confluence of the Minnesota, St. Croix and Mississippi rivers archives the combined record of changes in these three watersheds. It is filling in almost ten times faster than pre-settlement rates (Engstrom et al., 2009). High sediment-loading watersheds within the Minnesota River basin have been identified as the primary sources (e.g. Gran et al., 2009; Groeten et al., 2016)	Yes	Lower Minnesota River, Lake Pepin, Mississippi River, St. Croix River
Sediment Accumulation in the Floodplain of the Lower Minnesota River Watershed	On average, 200 tons of sediment per mile will accumulate in the channel, levees and floodplain	Yes	Lower Minnesota River
Sediment Accumulation in the Floodplain of the Lower Minnesota River Watershed	If the correlations are correct, sediment accumulation rates for the floodplain lakes are approximately: 1.0 cm/y from 1860 to 1910 (Background sedimentation rate); 1.0 cm/y from 1910 to 1950 (Rate may be low because of 1930s drought); 2.44cm/y from 1950 to 1993 (>2 times background; sediment stored during drought may be contributing to higher rates during this period); 1.4 cm/y from 1993 to 2018 (~50% higher than background)	Yes	Lower Minnesota River, Lake Pepin, Rice Lake, Mississippi River, St. Croix River

Erosion & Sediment Control

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Sediment Accumulation in the Floodplain of the Lower Minnesota River Watershed	In the last 50 years the valley floor rose 120 cm.	Yes	Lower Minnesota River, Lake Pepin, Rice Lake, Mississippi River, St. Croix River
Lower Minnesota River Watershed Restoration and Protection Strategy Report	The sources of suspended sediment identified were streambank erosion (primary source) and runoff from cropland.	No	
Lower Minnesota River Watershed Restoration and Protection Strategy Report	One very important strategy that would play a significant role for many of the impairments in the rural portions of this watershed is increased living cover. This strategy includes cover crops and use of perennial crops. Increased living cover provides multiple benefits—reducing phosphorus, sediment and nitrogen loading and improving hydrology and soil health.	Yes	
Lower Minnesota River Watershed Streams Stressor Identification Report	Other general suggestions to improve: Re-establishing a quality riparian corridor.	No	Minnesota River
Lower Minnesota River Watershed Streams Stressor Identification Report	Best Management Practices (BMPs) including: cover crops, nutrient management, saturated buffers, etc., will also help in the nitrate and phosphorus reduction. This could also help with the eutrophication and resulting dissolved oxygen issues as well.	No	Minnesota River
Lower Minnesota River Watershed TMDL Report Part I	The 90th percentile TSS concentrations per reach range from 43 to 616 mg/L. Average TSS concentrations vary annually.	Yes	Minnesota River
Lower Minnesota River Watershed TMDL Report Part I	[Near channel and agriculture are the main sources of TSS for streams]	No	Minnesota River
Lower Minnesota River Watershed TMDL Report Part II	Implement BMPs at target locations to reduce flow, TP and TSS loading from the watershed to the lake, including iron-enhanced sand filters, stormwater ponds, and/or infiltration practices.	No	
Lower Minnesota River Watershed TMDL Report Part II	Prioritize and complete stormwater control and streambank stabilization projects at sites that are contributing inordinate sediment loads to the study lakes and stream reaches, including subreaches that are at high-risk of bank instability and excessive bedload.	Yes	
Sand Creek Section 319 Small Watershed Focus Program Nine Element Plan	TSS: turbidity was mostly a function of suspended inorganic solids	No	
Sand Creek Section 319 Small Watershed Focus Program Nine Element Plan	TSS: most of the TSS load was from near channel sources	No	
Sand Creek Section 319 Small Watershed Focus Program Nine Element Plan	TSS: the Middle Sand Creek Management Area produced 5 to 10 times the TSS per acre yield compared to other Management Areas	Yes	Sand Creek
Sand Creek Section 319 Small Watershed Focus Program Nine Element Plan	TSS: Sand Creek and its tributaries (particularly in the middle Management Area) are still incising following creation of the Minnesota River valley	Yes	Sand Creek
Kickoff Meeting	Soil and bluff erosion - Ranked 3 of 8 for surface water concerns at Kickoff Meeting		
Kickoff Meeting	Degraded soil health - Ranked 4 of 8 for surface water concerns at Kickoff Meeting		
Kickoff Meeting	Locaitons of Conern: Drainage from neighboring crop ag land is a major source of pollutants as well as erosion sources. The Ravines have deepened and wash immense sediment loads with each heavy rainfall.		
Kickoff Meeting	Locaitons of Conern: Le Sueur / Henderson – Bluff Stabilization		Le Sueur - Henderson

Flooding & Floodplain

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Metropolitan Council Priority Letter	Flooding issues in the watershed.	Yes	
MPCA Priority Letter	Reconnecting incised streams to their floodplains improves ecological and hydrological functions, including increased resiliency in the system and reduced downstream flooding impacts.	Yes	
Scott Water Management Organization 2019-2026 Comprehensive Water Resources Management Plan	Localized flooding issues are a concern in Jordan, and lakes throughout the SWMO are experiencing high water levels and/or outlet issues.	No	
Scott Water Management Organization 2019-2026 Comprehensive Water Resources Management Plan	Goal 4: Flood Management. To protect human life, property, and surface water systems that could be damaged by flood events.		
City of Prior Lake Surface Water Management Plan & Appendices	[Many culverts becoming blocked by debris from beavers, ice buildup, and carp. This is causing an increased danger of flooding.] City streets experience temporary flooding due to intense rainfall events. Portions of the storm sewer system may be undersized or in need of repair. [Solutions to these problems and more are being managed by the city].	Yes	Prior Lake, Spring Lake, Fish Lake, and the other lakes and wetlands within the city of Prior Lake
City of Prior Lake Surface Water Management Plan & Appendices	Goal: To identify, plan and implement means to control runoff rate and volume.	Yes	Prior Lake, Spring Lake, Fish Lake, and the other lakes and wetlands within the city of Prior Lake
City of Savage Water Resource Management Plan-Draft	Flooding and Stormwater Rate Control: Flooding has occurred at the following locations: i. 7131 149th Street West – Flooding due to outlet and pond sizing. ii. 13765 Huntington Avenue South – Rear yard flood. iii. 4415 127th Street West – Flooding in rear yard. Evaluate future storm sewer improvements and the establishment of an Emergency Overflow (EOF). iv. 126th St. east of Pennsylvania Ave. (Beaver Dam). v. Xenwood at 126th St. vi. TH 13 and 128th St. (Beaver Dam) vii. Low area south of Ottawa Ave. & west of Riverwood Dr. in the backyard area near 5025 Riverwood Drive. viii. Hampshire Ave. crossing of Credit River	Yes	Credit River
City of Savage Water Resource Management Plan-Draft	Flooding and Stormwater Rate Control: Projects in City's 10 year Pond Maintenance Plan	No	
City of Savage Water Resource Management Plan-Draft	Flooding and Stormwater Rate Control: Large floating bog in Pond 16-346W, displacing capacity	Yes	Pond 16-346W
City of Savage Water Resource Management Plan-Draft	Flooding and Stormwater Rate Control: Maintenance of Manholes	No	
City of Savage Water Resource Management Plan-Draft	Flooding and Stormwater Rate Control: Credit River floodway south of Highway 13 near the downtown area limits development	No	Credit River

Flooding & Floodplain

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Prior Lake Spring Lake Watershed District Water Resources Management Plan 2020-2030	Reduce flooding issues: Current Flooding Risks on Prior Lake, Historical Flooding on Prior Lake, Future Increased Runoff, Insufficient Information to Inform Projects, Need to Assess Flood Reduction Goals.	Yes	
Prior Lake Spring Lake Watershed District Water Resources Management Plan 2020-2030	Reduce flooding actions: Storage & Infiltration Projects, Sutton Lake Outlet Structure, Wetland Banking Program, PLOC Management, Upper Watershed Blueprint	Yes	
Kickoff Meeting	Flooding - Ranked 7 of 8 for surface water concerns at Kickoff Meeting		
Kickoff Meeting	Stream connectivity - Ranked 8 of 8 for surface water concerns at Kickoff Meeting		
Kickoff Meeting	Locaitons of Conern: Flooding west of Le Center		Le Center

Protect Surface Water Resources

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
BWSR Priority Letter	Identify high value water resources (e.g. trout streams) that are most at risk for impairment using information such as the Lake Phosphorus Sensitivity Significance analysis (MN DNR/MPCA).	Yes	
BWSR Priority Letter	Due to the magnitude of the impaired streams and lakes in the LME Watershed, BWSR would like to see a thorough discussions on how you will set priorities and demonstrate success in this timeframe.	Yes	
BWSR Priority Letter	Partnership should use existing data, draft priorities, modeling results, and strategies from existing studies such as the multiple Watershed Restoration and Protection Strategies (WRAPS) Reports that include the Lower Minnesota River East waterbodies (e.g. lakes, streams, and the Minnesota River) to start discussions for 10-year Plan priorities.	Yes	
Metropolitan Council Priority Letter	Promoting and implementing best management practices aimed at protecting the quality and quantity of our resources	Yes	
MPCA Priority Letter	Areas of protection pertinent to the LMRW that were mentioned by the WRAPS work group. These areas included specifically the bluffs of the Minnesota River Valley that give rise to many springs, including Boiling Springs in Savage, a sacred site to the Mdewakanton Sioux Tribe as well as Eagle Creek, which is a coldwater system that is a designated trout stream.	Yes	Boiling springs, Eagle Creek
MPCA Priority Letter	Four streams in the Lower Minnesota River-East 1W1P area are considered high priority for protection: Eagle Creek (07020012-519), Unnamed Creek (07020012-684), County Ditch 3 (07020012-738), and County Ditch 8/53 (07020012-766).	Yes	Eagle Creek, Unnamed Creek, County Ditch 3, County Ditch 8/53
MPCA Priority Letter	There is a growing focus on maintaining the high-quality water that we still have. The same practices that protect water quality will also benefit wildlife, groundwater, air quality, soils, and numerous other aspects of our Minnesota environment	Yes	
Scott Water Management Organization 2019-2026 Comprehensive Water Resources Management Plan	Protection and prevention are a higher priority than restoration.	Yes	
City of Prior Lake Water System Plan Update	[Multiple channel, wetland, and outlet restorations/ maintenance taking place.]	No	
Le Sueur County Local Water Management Plan 2020-2026	Increase the number of agricultural, municipal and shoreland water retention structures and increase shoreland and wetland restoration.	No	
Lower Minnesota River Watershed Lakes Stressor Identification Report	Substantial efforts have been expended to reduce nutrient loading into lakes impaired for aquatic recreation based on water quality standards. Future projects that expand or enhance these efforts will benefit human (aquatic recreation use) and aquatic ecosystem (aquatic life use) health.	No	
Lower Minnesota River Watershed Lakes Stressor Identification Report	Riparian lakeshore development was identified as another significant candidate stressor. Previous activities in the riparian lakeshore areas have focused on minimizing nutrient loading caused by riparian development but few attempts have been made to preserve the natural complexity of these areas for aquatic life use.	Yes	
Kickoff Meeting	Wetland and fen management - Ranked 5 of 8 for surface water concerns at Kickoff Meeting		

Stormwater Management

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
City of Belle Plaine Surface Water Management Plan	The existing storm sewer piping, ditches and pond network shown is not capable of handling the potential runoff from continued development in the anticipated growth areas around the City. [Solution]: construction of upstream detention ponds or detention basins, including infiltration. 10-year frequency storm event for storm sewer design. 100-year, 24-hour frequency rainfall event, or the 100-year, 10-day snowmelt event is used for overland drainage and pond storage design. [Storm water basin] design provides for 85-95 percent removal of suspended solids and 40-70 percent removal of total phosphorus.	Yes	
City of New Prague Surface Water Management Plan	Stormwater Management: Specifically as development occurs within the City, Quality Stormwater Management, Quantity of Stormwater Management, Future Development	No	
City of Prior Lake Surface Water Management Plan & Appendices	Goals: To operate and manage the City's surface water system consistent with best current practices and the City's MS4 SWPPP.	Yes	Prior Lake, Spring Lake, Fish Lake, and the other lakes and wetlands within the city of Prior Lake
City of Prior Lake Surface Water Management Plan & Appendices	Goals: To ensure that the costs of the surface water system are equitably distributed and to utilize available funding mechanisms to construct and maintain a sustainable stormwater management system.	Yes	Prior Lake, Spring Lake, Fish Lake, and the other lakes and wetlands within the city of Prior Lake
City of Prior Lake Surface Water Management Plan & Appendices	Flooding and Stormwater management	No	
City of Prior Lake Water System Plan Update	[Got grant to repair storm sewer to improve water quality in North Prior Lake. Although more will need to be done to combat phosphorus load in this lake and many others.]	Yes	North Prior Lake
City of Savage Water Resource Management Plan-Draft	Flooding and Stormwater Rate Control: Quality of stormwater runoff entering Savage Fen may negatively impact fen	No	Savage Fen
City of Savage Water Resource Management Plan-Draft	Identification of Potential Problems which are Anticipated to Occur in the Next 20 Years Based on Growth Projections and Planned Urbanization: Inspecting and maintaining stormwater infrastructure	No	
City of Savage Water Resource Management Plan-Draft	Identification of Potential Problems which are Anticipated to Occur in the Next 20 Years Based on Growth Projections and Planned Urbanization: Accumulation of debris on City streets	No	
City of Savage Water Resource Management Plan-Draft	Identification of Potential Problems which are Anticipated to Occur in the Next 20 Years Based on Growth Projections and Planned Urbanization: Prioritizing stormwater pond inspection and maintenance, and determining performance	Yes	
Water Plan Implementation Plan 2015-2019 (PDF) - Rice County	Storm water Runoff Reduction and Water Quality Improvement	No	Cannon River, Zumbro River, Lower Minnesota River

Stormwater Management

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

City of Shakopee Local Surface Water Management Plan	[BMP focused on by the city]: Inspection of outfalls	No	
City of Shakopee Local Surface Water Management Plan	[BMP focused on by the city]: Street sweeping	No	
City of Shakopee Local Surface Water Management Plan	[BMP focused on by the city]: Inspection of post-construction BMPs	No	
City of Shakopee Local Surface Water Management Plan	[Continuing to evaluate storm mains and outlets to address concerns].	No	
Lower Minnesota River Dissolved Oxygen TMDL Implementation Plan	TP Source: Stormwater from urban areas	No	Lower Minnesota River
Lower Minnesota River Dissolved Oxygen TMDL Implementation Plan	TP Solution: Require Stormwater Pollution Prevention Plans - replacing pipes and adding ponds	No	Lower Minnesota River
Lower Minnesota River Watershed TMDL Report Part II	Implement RPBCWD stormwater management rules to help minimize phosphorus load increase and degradation of water quality as future development occurs within the watersheds.	No	

Surface Water Quality

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
DNR Priority Letter	Priority lakes for water quality	Yes	Priority lakes: Upper and Lower Prior Lake, Spring Lake, O'Dowd Lake, Thole Lake, Cedar Lake, Mahon Lake, Fish Lake, Greenleaf Lake, and Clear (Lexington) Lake
DNR Priority Letter	Many of the watershed's streams and lakes are impaired for nutrients.	Yes	
DNR Priority Letter	Reducing excess nutrients (phosphorus) is a priority for the DNR as it reduces water quality and impacts fish and wildlife habitat. High nutrient levels also put the waters at risk of algae blooms, including harmful blue-green algae, which can significantly reduce the aesthetic quality of lakes and streams and limit recreational use.	Yes	
BWSR Priority Letter	Water quality data from multiple sources such as the MPCA and Met Council should be reviewed and considered for all pollutants.	Yes	
BWSR Priority Letter	Should use existing models and data to address water quantity issues in the Plan.	Yes	
BWSR Priority Letter	Use of the data such as Hydrologic Simulation Program–FORTRAN (HSPF) estimates of annual average runoff and precipitation to prioritize subwatersheds for water storage activities. HSPF can also be used for estimating pollutant loads from subwatersheds for prioritization.	Yes	
BWSR Priority Letter	Should use information from relevant hydrologic reports such as the Evaluation of Hydrologic Change (EHC) developed by the MNDNR and hydrologic models developed for floodplain modeling (e.g. Scott County) and other studies.	Yes	
BWSR Priority Letter	Data such as flow, discharge, runoff, etc. that can be used for the report can come from multiple entities such as DNR, MPCA, Met Council, watershed organizations, counties, and the U.S. Geological Survey.	Yes	
Metropolitan Council Priority Letter	Efficiently addressing nonpoint and point sources pollution issues and solutions	Yes	
Metropolitan Council Priority Letter	Phosphorus source control would reduce eutrophication issues in watershed lakes, and nitrate source control would protect human health and reduce potential for drinking water well contamination.	Yes	
Metropolitan Council Priority Letter	Problems with lake and stream water quality and quantity including information on impaired waters and the watershed's role in addressing the impairments.	Yes	

Surface Water Quality

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Metropolitan Council Priority Letter	Downstream impacts from the Lower Minnesota River East watershed: The majority of the 1W1P will be focused on waterbodies and practices within the watershed. However, the Lower Minnesota River East watershed is a major contributor of sediment and nutrients to the Mississippi River and has downstream impacts on water supplies, Lake Pepin, and ultimately the Gulf of Mexico. The 1W1P should explicitly address the context of the Lower Minnesota River East within the greater Mississippi River watershed.	Yes	Minnesota and Mississippi River, Gulf of Mexico, Lake Pepin
Metropolitan Council Priority Letter	Improvement of water quality in the watershed would likely have a positive impact on the parks, whether by improving fisheries and wildlife, by reducing risks to public health, and by improving river aesthetics.	Yes	
MPCA Priority Letter	Needed pollutant load reductions are generally high and will require significant adoption of conservation practices. Accordingly, as a very general guideline or goal, it is assumed that 1% to 2% of the overall needed reduction will occur per year on average. This means that a 10% reduction goal is expected to be achieved in 5 to 10 years and 50% reduction goal will take 25 to 50 years.	Yes	
MPCA Priority Letter	Priority Lakes: Upper Prior Lake, Lower Prior Lake, Spring Lake, Clear Lake, Lake Pepin, Sanborn Lake, Cody Lake, Greenleaf Lake, and Phelps Lake), impaired streams (Robert Creek, Forest Prairie Creek, and Le Sueur Creek. Priority protection of trout streams: Eagle Creek. These waterbodies provide both ecological and recreational value to residents and are of high social importance. Areas with rare and natural plant and animal communities should also be protected and enhanced. Rebuilding habitat utilized by rare and threatened species will help restore their populations while also improving watershed health and stream stability.	Yes	Upper Prior Lake, Lower Prior Lake, Spring Lake, Clear Lake, Lake Pepin, Sanborn Lake, Cody Lake, Greenleaf Lake, and Phelps Lake), impaired streams (Robert Creek,
MPCA Priority Letter	Reduce nutrient delivery to the watershed.	Yes	
MPCA Priority Letter	High levels of nutrients (phosphorus) are driving nuisance algae blooms in the watershed's impaired lakes and threatening other lakes that are on the verge of becoming impaired.	Yes	
MPCA Priority Letter	Algae blooms can deprive lakes of their oxygen as the algae die off and decay, causing fish kills.	Yes	
MPCA Priority Letter	High levels of algae cause increased levels of turbidity, degrading aquatic recreation and aquatic life.	Yes	
MPCA Priority Letter	Blue-green algae can also cause serious health issues for humans and pets.	Yes	

Surface Water Quality

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
MPCA Priority Letter	The MPCA anticipates more lakes and stream reaches will be listed as impaired following the intensive monitoring phase of the second watershed cycle (beginning 2025).	Yes	
MPCA Priority Letter	Past stream monitoring has documented high concentrations of total phosphorus. With the implementation of the new River Eutrophication Standards, the MPCA suspects that new stream impairments are likely to emerge.	Yes	
MPCA Priority Letter	Management plans that appropriately value the nutrient worth of manure and previous crops and focus on the timing and intensity of the fertilizers and manure applications will help reduce the amount of phosphorus and nitrogen reaching the river. These reductions would also aid in the low dissolved oxygen problems present in some parts of the watershed.	Yes	
MPCA Priority Letter	Lake; Nutrient/eutrophication: 17 impairments	Yes	
MPCA Priority Letter	River Eutrophication: 3 impairments	Yes	
MPCA Priority Letter	Low dissolved oxygen: stressor for 8 reaches	Yes	
MPCA Priority Letter	Eutrophication: stressor for 12 reaches	Yes	
MPCA Priority Letter	High nitrates: stressor for 9 reaches	Yes	
MPCA Priority Letter	In 2002, the Credit River was listed as impaired for aquatic life based on turbidity and was slated for a TMDL study. During the data collection process for the study, it became clear that the river did not exceed the turbidity standard and the end product was changed to a Protection Plan	Yes	Credit River
MPCA Priority Letter	Lower Prior Lake is high priority for phosphorous	Yes	
MPCA Priority Letter	McMahon Lake is high priority for phosphorous	Yes	
MPCA Priority Letter	O"Dowd Lake is high priority for phosphorous	Yes	
MPCA Priority Letter	Hass Lake is medium priority for phosphorous	No	
MPCA Priority Letter	Rice Lake is lower priority for phosphorous	No	
MPCA Priority Letter	Metogga Lake is lower priority for phosphorous	No	
MPCA Priority Letter	Murphy Lake is lower priority for phosphorous	No	
MPCA Priority Letter	Hanrahan Lake is lower priority for phosphorous	No	
MPCA Priority Letter	Crystal Lake is lower priority for phosphorous	No	
Scott SWCD Comprehensive Plan 2018-2027	The primary impairment of concern in lakes is excess nutrients. Bacteria (E. coli) and chlorides are impairments of emerging or increasing concern. 10 of 15 lakes are experiencing aquatic use impairments. [63% of stream segments are impaired].	Yes	Areas of water in Scott County with impairments. See pg. 19 and 20 for list
Scott SWCD Comprehensive Plan 2018-2027	[Some main concerns are soil erosion, surface water quality, groundwater quality and quantity, wetland restoration.]	Yes	Areas of water in Scott County with impairments. See

Surface Water Quality

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Scott Water Management Organization 2019-2026 Comprehensive Water Resources Management Plan	Surface water quality is impaired.	No	
Scott Water Management Organization 2019-2026 Comprehensive Water Resources Management Plan	Goal 2: Surface Water Quality. To protect and improve surface water quality.		
City of Belle Plaine Surface Water Management Plan	Equally as important as flood control and cost considerations, is the use of ponding areas to: Improve water quality; Return storm water to the groundwater table; Increase water amenities in developments for aesthetic, recreational and wildlife purposes.	No	
City of New Prague Surface Water Management Plan	No MPCA impaired waters within New Prague, though downstream of New Prague Sand Creek and the Minnesota River are both listed	No	Phillip Creek, Raven Stream, Sand Creek
City of Prior Lake Surface Water Management Plan & Appendices	Poor Water Quality	No	Artic Lake
City of Prior Lake Surface Water Management Plan & Appendices	Spring lake, Upper and Lower Prior lake, Pike, Clearly lake, and the Minnesota River are all impaired waters in the City of Prior Lake. [Many mercury concentration issues and excess nutrients]	Yes	Prior Lake, Spring Lake, Fish Lake, and the other lakes and wetlands within the city of Prior Lake
City of Prior Lake Surface Water Management Plan & Appendices	Goal: To identify, plan, and implement means to effectively protect and improve water quality.	Yes	Prior Lake, Spring Lake, Fish Lake, and the other lakes and wetlands within the city of Prior Lake
City of Prior Lake Surface Water Management Plan & Appendices	Lakes impaired for excess nutrients	No	Spring Lake, Upper Prior Lake, Pike Lake, Cleary Lake

Surface Water Quality

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
City of Prior Lake Surface Water Management Plan & Appendices	Surface water groundwater connection and contamination potential	No	Prior Lakes, Spring Lake, Fish Lake, and the other lakes and wetlands within the city of Prior Lake
City of Prior Lake Surface Water Management Plan & Appendices	Impaired for mercury, PCBs, dissolved oxygen, turbidity	No	Minnesota River
City of New Prague Surface Water Management Plan	Goals related to: Water quality and flooding, water quality, hazardous materials, education and outreach, wetland protection	No	
Prior Lake Spring Lake Watershed District Water Resources Management Plan 2020-2030	Water quality issues: External Loading, Internal Loading, Low Plant Diversity, High Phosphorus Levels, Insufficient Information Available, Loss of Wetland Quality, Loss of Wetland Quantity, Streambank Erosion & Slumping, Erosion along the Prior Lake Outlet Channel, Groundwater Quality and/or Contamination	Yes	Upper Prior Lake and Spring Lake, Sutton Lake, Lower Prior Lake, Haas Lake, CD 13, Hwy 13 wetland, Fish Lake, Panama Ave Wetland, Cate's channel. Rice Lake, Crystal Lake, Pike Lake, Buck Lake, Artic Lake, Jeffers Pond, Swamp Lake
Prior Lake Spring Lake Watershed District Water Resources Management Plan 2020-2030	Water quality actions: In-Lake Alum Treatments, Public Infrastructure Projects, Wetland Restorations, Cost-Share Projects, Farmer-Led Council Initiatives, Ferric Chloride Treatment System.	Yes	
Water Plan Implementation Plan 2015-2019 (PDF) - Rice County	Assess Surface Waters in Rice County for their Designated Use	No	Cannon River, Zumbro River, Lower Minnesota River

Surface Water Quality

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Water Plan Implementation Plan 2015-2019 (PDF) - Rice County	Preserve/ Restore Wetlands	Yes	Cannon River, Zumbro River, Lower Minnesota River
Water Plan Implementation Plan 2015-2019 (PDF) - Rice County	Improve/Protect Surface Water Resources	Yes	Cannon River, Zumbro River, Lower Minnesota River
City of Shakopee Local Surface Water Management Plan	O'Dowd lake, Pike lake, Eagle Creek, Thole lake, Schneider lake, Picha Creek and the Minnesota River are listed as impaired bodies of water. ~ [BMPs focused on by the city]: Inspection of outfalls, Street sweeping, Inspection of post-construction BMPs, Storm sewer system mapping, Resident education. ~ TMDLs for the impaired waters ~ Continue to implement a water quality monitoring program. ~ [Working to increase water quality in Dean Lake Wetland]. ~ [Continuing to evaluate storm mains and outlets to address concerns].	No	O'Dowd lake, Pike lake, Eagle Creek, Thole lake, Schneider lake, Picha Creek and the Minnesota River
City of Shakopee Local Surface Water Management Plan	O'Dowd lake, Pike lake, Eagle Creek, Thole lake, Schneider lake, Picha Creek and the Minnesota River are listed as impaired bodies of water.	No	O'Dowd lake, Pike lake, Eagle Creek, Thole lake, Schneider lake, Picha Creek and the Minnesota River
City of Shakopee Local Surface Water Management Plan	[Working to increase water quality in Dean Lake Wetland].	No	Dean Lake wetland
City of Shakopee Local Surface Water Management Plan	TMDLs for the impaired waters	Yes	O'Dowd lake, Pike lake, Eagle Creek, Thole lake, Schneider lake, Picha Creek and the Minnesota River
Le Sueur County Local Water Management Plan 2020-2026	Proposed 2014 Inventory of Impaired Waters List, Le Sueur County has 12 recreational lakes (for nutrients). Segments of the Minnesota River and Sand Creek. Whitewater and Waterville Creeks and the Le Sueur River watersheds are listed along with 18 lakes. Will complete 1W1P.	Yes	Minnesota River, Cannon River, Sand Cree, Whitewater Creek, Waterville Creek, LeSueur River

Surface Water Quality

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Lower Minnesota River Watershed District Water Management Plan 2018-2027	The water quality restoration program will fund activities that reduce urban nonpoint source pollution, improve, and protect groundwater quality, and promote surveys and studies of wetlands' (fen) health and management.	No	
Lower Minnesota River Watershed District Water Management Plan 2018-2027	The Minnesota River, Carver Creek, East Creek, Dean Lake, Credit River, are currently on the Minnesota Pollution Control Agency's (MPCA) list of impaired waters. Of the 21 impairments within the District, there are seven completed TMDL Implementation Plans and six in progress.	Yes	Minnesota River, Carver Creek, East Creek, Dean Lake, Credit River
Lower Minnesota River Watershed District Water Management Plan 2018-2027	The 20-year runoff for Minnesota River Basin average annual yield has more than doubled in the latter 57 years, increasing from nearly 2 million acre-feet in 1950 to over 5 million acre-feet in 2007.	Yes	
Lower Minnesota River Watershed District Water Management Plan 2018-2027	The watershed yield has doubled since the 1940s	Yes	
Lower Minnesota River Watershed District Water Management Plan 2018-2027	The total TSS load has doubled since the 1980s	Yes	
Lower Minnesota River Watershed District Water Management Plan 2018-2027	The TP load has increased by about 15 percent since the 1980s.	No	
Lower Minnesota River Watershed District Water Management Plan 2018-2027	Pollutant sources: feedlots, abandoned wells, storage tanks, industrial discharges, wastewater treatment plants, landfills and solid waste, hazardous waste, pesticide and fertilizer.	No	
Lower Minnesota River Watershed District Water Management Plan 2018-2027	Increases in sediment and nutrient load decreases oxygen levels in the river which has an adverse effect on the aquatic habitat in both the river and in floodplain lakes within the District.	No	
Lower Minnesota River Watershed District Water Management Plan 2018-2027	The District will work with regulatory agencies and upstream watershed entities to reduce sediment and nutrient loads.	No	
City of Savage Water Resource Management Plan-Draft	Impaired waters without TMDL WLA (waste load allocation): Minnesota River (nutrients, turbidity, PCB, DO), Credit River (fishes bioassessment, aquatic macroinvertebrate assessment, delisted for turbidity in 2012)	Yes	Minnesota River, Credit River
City of Savage Water Resource Management Plan-Draft	Availability and Adequacy of Existing Technical Information to Manage Water Resources: Stormwater GIS database to be continually updated	No	
City of Savage Water Resource Management Plan-Draft	Eagle Creek – approved TMDL WLA for E.coli	No	Eagle Creek
City of Savage Water Resource Management Plan-Draft	Minnesota River – approved TMDL WLA for TSS (154lbs/acre/year)	No	Minnesota River
City of Savage Water Resource Management Plan-Draft	Mississippi River TMDL WLA for TSS – categorical allocation that requires 0% reduction	No	Mississippi River

Surface Water Quality

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Cedar Lake and McMahon (Carl's) Lake TMDL Report	Cedar and McMahon (Carl's) Lakes are currently listed on the Minnesota Pollution Control Agency's (MPCA) 2010 303(d) Impaired Waters List due to excessive nutrients (phosphorus).	Yes	Cedar and McMahon (Carl's) Lakes, Sand Creek, Saint Patrick Wetland
Cedar Lake and McMahon (Carl's) Lake TMDL Report	[McMahon Lake 10 year growing season average of total phosphorus = 85 ug/L and chlorophyll a = 70 ug/L.]	Yes	McMahon (Carl's) Lake
Cedar Lake and McMahon (Carl's) Lake TMDL Report	[Cedar Lake 10 year growing season average of growing season of total phosphorus = 170 ug/L and chlorophyll a = 71 ug/L.]	Yes	Cedar Lake
Cedar Lake and McMahon (Carl's) Lake TMDL Report	Water quality in both Cedar and McMahon Lakes is generally dominated by internal loading processes. Although both lakes are shallow and mix frequently, internal loading from the sediment contributes a substantial phosphorus load to each lake. [Internal loading components for both lakes include sediment, carp (only Cedar), and curlyleaf pondweed.]	Yes	Cedar and McMahon (Carl's) Lakes
Cedar Lake and McMahon (Carl's) Lake TMDL Report	[A large majority of the existing load of phosphorus is from internal sources.]	Yes	Cedar and McMahon (Carl's) Lakes
City of Prior Lake Water System Plan Update	Looking into projects to reduce runoff, increase infiltration, and reduce pollutant loading and transport directly to Prior Lake.	Yes	Prior Lake, Spring Lake, Fish Lake, and the other lakes and wetlands within the city of Prior Lake
City of Prior Lake Water System Plan Update	[Spring lake's phosphorus is from mainly internal sources. Improving this would also benefit the phosphorus levels downstream in the other major lakes.]	Yes	Spring Lake
Minnesota River E. Coli TMDL and Implementation Strategies Report	Three of the impaired reaches (Big Stone Lake to Marsh Lake Dam, Lac qui Parle Dam to Granite Falls Dam, and Cherry Creek to High Island Creek) have relatively low levels of impairment.	No	Minnesota River
Minnesota River E. Coli TMDL and Implementation Strategies Report	The other two reaches (Blue Earth River to Cherry Creek and High Island Creek to Carver Creek) show moderate impairment. The monthly geometric mean standard was violated for two out of seven months in the Blue Earth River to Cherry Creek reach and for three out of seven months in the High Island Creek to Carver Creek reach. The violations of the monthly geometric mean standard range from 159 to 314 org/100 mL.	Yes	Minnesota River

Surface Water Quality

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Minnesota River E. Coli TMDL and Implementation Strategies Report	On average, concentrations increase as flows increase. The few exceedances of the individual sample standard occur across a range of flow conditions, indicating a mix of sources or pathways	No	Minnesota River
Spring and Upper Prior Lake TMDL Implementation Plan	The TMDL report calls for an 88% reduction (4,554 lbs) in internal loading in Spring Lake, and a 22% reduction (571 lbs) in internal loading in Upper Prior Lake.	Yes	Upper Prior Lake and Spring Lake
Spring and Upper Prior Lake TMDL Implementation Plan	Both lakes are impaired by multiple pollutants and at least one TMDL study plan (mercury, in this case) is approved by EPA	Yes	Upper Prior Lake and Spring Lake
Spring and Upper Prior Lake TMDL Implementation Plan	Phosphorous loads for Spring Lake: Watershed runoff, from agricultural, developed, and undeveloped areas (47%), Internal loading within Spring Lake, including the load from rough fish and curly-leaf pondweed (49%), Atmospheric load and septic systems (4%). P = 118 ug/L and chlorophyll-a = 58 ug/L	Yes	Spring Lake
Spring and Upper Prior Lake TMDL Implementation Plan	Upper Prior Lake phosphorous loads sources: Loading from Spring Lake and other upstream lakes (42%), which includes watershed runoff from agricultural, developed, and undeveloped areas, Internal loading within Upper Prior Lake, including the load from rough fish and curly-leaf pondweed (50%), Direct watershed load, atmospheric load, and septic systems (8%). P = 80 ug/L and chlorophyll-a = 63 ug/L.	Yes	Upper Prior Lake
Sand Creek TMDL Vol 1	Scott County CD 10, Valley Creek, and Bevens Creek – Upper and Lower, Cannon River, Vermillion River and West Raven Stream had the highest pollutant yields (kg/ha) of nitrate (of the metropolitan areas streams assessed) in 2004.	Yes	Scott County CD 10, Valley Creek, and Bevens Creek – Upper and Lower, Cannon River, Vermillion River and West Raven Stream
Spring Lake and Upper Prior Lake TMDL	Upper Prior Lake and Spring Lake were listed on Minnesota's 303(d) List of Impaired Waters for aquatic recreation due to excessive nutrients.	Yes	Spring Lake and Upper Prior Lake
Spring Lake and Upper Prior Lake TMDL	A numeric target of 40 µg/L total phosphorus concentration, 14 µg/L chlorophyll-a and 1.4 m Secchi disk transparency for Spring Lake, a deep lake	No	Spring Lake
Spring Lake and Upper Prior Lake TMDL	A numeric target of 60 µg/L total phosphorus concentration, 20 µg/L chlorophyll-a and 1 m Secchi disk transparency for Upper Prior Lake, a shallow lake	No	Upper Prior Lake
Spring Lake and Upper Prior Lake TMDL	The hypolimnia of both lakes exhibit anoxic conditions throughout the summer. These observations are consistent with significant internal loading in Spring and Upper Prior lakes.	No	Spring Lake and Upper Prior Lake

Surface Water Quality

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Spring Lake and Upper Prior Lake TMDL	Spring Lake: Internal phosphorus load was estimated at approximately 49% of the total load, Approximately 47% of the total load comes from the watershed. The remaining 4% represents atmospheric load and septic systems.	Yes	Spring Lake and Upper Prior Lake
Spring Lake and Upper Prior Lake TMDL	Upper Prior Lake: Internal phosphorus load was estimated at approximately 50% of the total load, Approximately 42% of the total load comes from upstream lakes, 38% from Spring Lake alone. The remaining 8% represents the direct watershed load, atmospheric load and septic systems.	Yes	Spring Lake and Upper Prior Lake
Lower Minnesota River Dissolved Oxygen TMDL Implementation Plan	TP Source: Runoff from agricultural cropland.	No	Lower Minnesota River
Lower Minnesota River Dissolved Oxygen TMDL Implementation Plan	TP Solution: Utilizing crop residue and protecting open tile intakes – or equivalent practices – will be encouraged	No	Lower Minnesota River
Lower Minnesota River Dissolved Oxygen TMDL Implementation Plan	Phosphorus presents the biggest problem during low flow conditions.	Yes	Lower Minnesota River
Lower Minnesota River Dissolved Oxygen TMDL Implementation Plan	Dissolved oxygen daily average is 5.0 mg/L	Yes	Lower Minnesota River
Lower Minnesota River Dissolved Oxygen TMDL Implementation Plan	TP Solution: MPCA is implementing a new basin-wide phosphorus permit	No	Lower Minnesota River
Lower Minnesota River Dissolved Oxygen TMDL Implementation Plan	Goal to reduce BOD by 40%	Yes	Lower Minnesota River
Minnesota River E. Coli TMDL and Implementation Strategies Report	E. Coli reductions needed to meet the TMDLs range from 19% to 60%, with the highest reductions needed in the watershed of the most downstream reach.	No	Minnesota River
Lower Minnesota River Watershed Lakes Stressor Identification Report	Results of FIBI Aquatic Life Use Assessment for "not supporting" impaired lakes [in () is the fish community stressor likelihood] : Riley (high), Lotus (high), Bavaria (low), Waconia (mod), Bryant (mod), Lower Prior (low), Spring (high), O'Dowd (mod).	Yes	Lakes: Riley, Lotus, Bavaria, Waconia, Bryant, Lower Prior, Spring, O'Dowd
Lower Minnesota River Watershed Lakes Stressor Identification Report	Other vulnerable lakes: Crystal, Orchard, Fish, Upper Prior	No	Fish, Crystal, Orchard, Upper Prior
Lower Minnesota River Watershed Lakes Stressor Identification Report	Excess nutrients are the most significant candidate stressor.	Yes	
Lower Minnesota River Watershed Monitoring and Assessment Report	Crystal and McMahon Lakes were removed from the impaired waters list due to successful restoration efforts, a demonstration that through cooperation and the efficient use of best management practices improvements to water quality are possible	No	Crystal and McMahon Lake

Surface Water Quality

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Lower Minnesota River Watershed Monitoring and Assessment Report	Overall stream aquatic biology is performing very poorly in the watershed. Impairments were identified in all subwatersheds	Yes	
Lower Minnesota River Watershed Monitoring and Assessment Report	Efforts to control inputs are needed from concentrated animal activity in flood plains, manure management on farms, urban yard waste and by bringing Wastewater Treatment Plants (WWTPs) and septic systems into compliance.	No	
Lower Minnesota River Watershed Monitoring and Assessment Report	Elevated concentrations of TSS and nitrates are a result of non-point source pollution from urban and agricultural sources.	No	
Lower Minnesota River Watershed Monitoring and Assessment Report	High concentrations of total phosphorous (TP) can be caused by both point sources like WWTPs and non-point sources of pollution like agriculture and sediments.	No	
Lower Minnesota River Watershed Monitoring and Assessment Report	Elevated bacteria levels are also a persistent problem across the watershed.	No	
Lower Minnesota River Watershed Restoration and Protection Strategy Report	Phosphorus sources include cropland, altered wetlands, urban stormwater and internal loading in lakes (due to past loading of phosphorus, as well as carp and curly-leaf pondweed infestation).	No	
Lower Minnesota River Watershed Restoration and Protection Strategy Report	Livestock manure and fertilized fields are likely phosphorus source as well, in addition to being a primary E. coli source.	No	
Lower Minnesota River Watershed Streams Stressor Identification Report	City of Le Sueur-Minnesota River HUC 10: 3 impaired reaches. Main stressors: Eutrophication and Altered Hydrology/Connectivity.	No	Minnesota River
Lower Minnesota River Watershed Streams Stressor Identification Report	City of Belle Plain-Minnesota River HUC 10: 3 impaired reaches. Main stressors: Nitrates, Habitat and Altered Hydrology/ Connectivity.	No	Minnesota River
Lower Minnesota River Watershed Streams Stressor Identification Report	Sand Creek HUC 10: 12 impaired reaches. Main stressors: Dissolved Oxygen (5), Eutrophication (8), Nitrates, Suspended Sediment (6), Habitat (12) and Altered Hydrology/ Connectivity (4).	No	Sand Creek
Lower Minnesota River Watershed Streams Stressor Identification Report	Le Sueur Creek HUC 10: 8 impaired reaches. Main stressors: Nitrates (5), Suspended Sediment (3), Habitat (5) and Altered Hydrology/Connectivity (4). A primary focus to remedy these issues would be to better manage the amount of nitrates being applied to the landscape and removing easy pathways for nitrates to enter the stream system.	No	Le Sueur Creek
Lower Minnesota River Watershed Streams Stressor Identification Report	Minnesota River HUC 10: 13 impaired reaches. Main stressors: Dissolved Oxygen (5), Eutrophication (3), Habitat (8) and Altered Hydrology/Connectivity (8). Solutions: [limit fertilizers and runoff to decrease phosphorus, increase storage and infiltration.	Yes	Minnesota River
Lower Minnesota River Watershed TMDL Report Part I	19 lakes and 61 impairments on 51 stream reaches are impaired. Impairments: eutrophication, E. coli, turbidity or TSS, phosphorus (P), chloride (Cl), macroinvertebrate species assemblage, and/or fish species assemblage.	No	

Surface Water Quality

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Lower Minnesota River Watershed TMDL Report Part I	Average growing season mean phosphorus concentrations in all impairments are well above the 150 µg/L standard. During low flow conditions, loads from wastewater, groundwater, and upstream lakes and wetlands typically represent a greater proportion of loading than under average annual conditions. Under high flow conditions, loads from watershed runoff and near-channel sources are typically more dominant.	Yes	Minnesota River
Lower Minnesota River Watershed TMDL Report Part I	Overall, chl-a and BOD concentrations exceeded the standard across a range of flows.	Yes	Minnesota River
Lower Minnesota River Watershed TMDL Report Part II	[14/14 analyzed lakes exceeded average TP and Chlorophyll-a standards.]	Yes	
Lower Minnesota River Watershed TMDL Report Part II	[Upstream lakes, direct watershed, internal loading, and atmospheric deposition are the most common sources of TP in lakes.]	No	
Lower Minnesota River Watershed TMDL Report Part II	Conduct alum treatment of the internal sediment phosphorus loading where internal reductions are required	No	
Lower Minnesota River Watershed TMDL Report Part III	For the six lakes in their TMDL baseline years, summer-average TP concentrations exceeded the 60 micrograms per liter (µg/L) shallow-lake standard by factors ranging from two to five.	No	
Lower Minnesota River Watershed TMDL Report Part III	P enters from regulated sources, such as industrial and community wastewater, and nonregulated sources, including precipitation and internal loading.	No	
Lower Minnesota River Watershed TMDL Report Part III	TP concentrations of around 300 µg/L or higher typify urban runoff.	No	
Minnesota River E. Coli TMDL and Implementation Strategies Report	The watersheds of the impaired reaches range from approximately 50% to over 70% cropland	Yes	Minnesota River
Lower Minnesota River Watershed Approach Civic Engagement Project	Terraces are the most common practice used by landowners in Le Sueur County due to the rolling hills in the watershed.	No	
Lower Minnesota River Watershed Approach Civic Engagement Project	Farmers are most commonly addressing water erosion with their conservation practices and others said wind erosion and soil health.	No	
Lower Minnesota River Watershed Approach Civic Engagement Project	Many of the landowners are curious about cover crops and would like to try them.	No	
Sand Creek Section 319 Small Watershed Focus Program Nine Element Plan	[All the streams and tributaries listed to the right have poor or poor to fair channel quality.]	Yes	Picha Creek, Sand Creek, Porter Creek, Raven Stream, Cedar Lake, Carl's Lake

Surface Water Quality

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Sand Creek Section 319 Small Watershed Focus Program Nine Element Plan	Internal loading was identified as a substantial source of phosphorus to the impaired lakes. The next highest loading occurred from cropland. Both sources are priorities for targeting the implementation of practices to reduce the loading.	Yes	
Sand Creek Section 319 Small Watershed Focus Program Nine Element Plan	On an average annual loading basis, the primary phosphorus sources to the streams with eutrophication impairments are agricultural lands and loads from upstream water bodies.	No	
Kickoff Meeting	Pollutants (nutrients, bacteria contamination, chloride, toxics, metals) - Ranked 1 of 8 for surface water concerns at Kickoff Meeting		
Kickoff Meeting	Other category inputs on surface water survey: Sediment water clarity.		
Kickoff Meeting	Other category inputs on surface water survey: Run off into lakes - need more rain garden and natural shorelines		
Kickoff Meeting	Tell us more input on surface water survey: Too much road salt getting into boiling springs - Prior Lake		
Kickoff Meeting	Tell us more input on surface water survey: I live on Cedar Lake and very concerned about algae blooms and water quality.		
Kickoff Meeting	Locaitons of Conern: Spring Lake – in lake pollution and incoming water pollution		Spring Lake
Kickoff Meeting	Locaitons of Conern: Water quality into Prior Lake – Spring Lake chain of lakes – make sure we revisit their studies		Prior Lake, Spring Lake
Kickoff Meeting	Locaitons of Conern: Upper and Lower Prior Lake – wake boards and waterfront shoreline erosion		Upper and Lower Prior Lake, Upper Conern
Kickoff Meeting	Locaitons of Conern: Cedar Lake – nitrates, shallow lake, AIS, and carp		Cedar Lake
Kickoff Meeting	Locaitons of Conern: Minnesota River – ag runoff, overall want good water quality / health		Minnesota River
Kickoff Meeting	Locaitons of Conern: Mississippi – overall quality of what we are putting in		Mississippi River

Waste & Feedlots

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Metropolitan Council Priority Letter	Providing efficient and cost effective wastewater services to the region	Yes	
Metropolitan Council Priority Letter	WWTP (wastewater treatment plant) upgrades: Council trend analysis suggests that WWTP upgrades and installation of phosphorus-removal technologies has resulted in measurable reductions in total phosphorus in the Lower Minnesota River. While it may be beyond the scope of the 1W1P, identification of WWTPs needing upgrades may help with reductions in phosphorus, nitrogen, chloride, and bacteria.	Yes	
MPCA Priority Letter	Control pathways delivering human and livestock feces to the LMRW.	Yes	
MPCA Priority Letter	High levels of bacteria are widespread across the western portion of the watershed.	Yes	
MPCA Priority Letter	The abundance of feedlots, feedlot runoff, improper manure management, and over-grazed pastures in the watershed may correlate with this finding.	Yes	
MPCA Priority Letter	High bacteria levels are also attributed to noncompliant septic systems.	Yes	
MPCA Priority Letter	Fecal Coliform; E. coli: 16 impairments	Yes	
Water Plan Implementation Plan 2015-2019 (PDF) - Rice County	Agricultural/Feedlot Education	No	Cannon River, Zumbro River, Lower Minnesota River
Water Plan Implementation Plan 2015-2019 (PDF) - Rice County	Identification of small community wastewater issues-Unsewered	Yes	Cannon River, Zumbro River, Lower Minnesota River
Water Plan Implementation Plan 2015-2019 (PDF) - Rice County	Septic System Upgrades	No	Cannon River, Zumbro River, Lower Minnesota River
Water Plan Implementation Plan 2015-2019 (PDF) - Rice County	Septic System Education	No	Cannon River, Zumbro River, Lower Minnesota River
Water Plan Implementation Plan 2015-2019 (PDF) - Rice County	Registration of Septage Land Application Sites	No	Cannon River, Zumbro River, Lower Minnesota River
Water Plan Implementation Plan 2015-2019 (PDF) - Rice County	Provide Financial and Technical Assistance to feedlot owners/operators to achieve compliance	No	Cannon River, Zumbro River, Lower Minnesota River
Water Plan Implementation Plan 2015-2019 (PDF) - Rice County	Nutrient Management	No	Cannon River, Zumbro River, Lower Minnesota River

Waste & Feedlots

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Water Plan Implementation Plan 2015-2019 (PDF) - Rice County	Hazardous/Solid Waste Education and Coordination	No	Cannon River, Zumbro River, Lower Minnesota River
City of Prior Lake Surface Water Management Plan & Appendices	SSTS contamination of surface and groundwater potential	No	
Le Sueur County Local Water Management Plan 2020-2026	Working to bring all septic systems in Le Sueur County into compliance (20% annually).	Yes	
Minnesota River E. Coli TMDL and Implementation Strategies Report	Livestock from unpermitted animal feeding operations (AFO) and imminent public health threat (IPHT) septic systems are the primary sources of concern in the TMDL project focus area.	Yes	Minnesota River
Lower Minnesota River Dissolved Oxygen TMDL Implementation Plan	TP Source: Wastewater treatment facilities that discharge continuously to the River (over 1,800 pounds of phosphorus per year)	Yes	Lower Minnesota River
Lower Minnesota River Dissolved Oxygen TMDL Implementation Plan	TP Source: Direct discharges of sewage from homes and unsewered communities	No	Lower Minnesota River
Lower Minnesota River Dissolved Oxygen TMDL Implementation Plan	TP Solution: Failing septic systems must be located and fixed	No	Lower Minnesota River
Lower Minnesota River Watershed TMDL Report Part III	Watershed runoff also contributes substantial P; this source is divided into a portion from regulated Municipal Separate Storm Sewer Systems (MS4s) as well as construction stormwater and industrial stormwater, and the remainder, which is not regulated.	No	
Lower Minnesota River Watershed Restoration and Protection Strategy Report	Failing septic systems and urban stormwater also appear to add to the E. coli levels.	No	

Water Rate & Quantity

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
DNR Priority Letter	Annual peak flow has increased by 80% and prolonged high flows have increased dramatically, when comparing the same time periods.	Yes	
DNR Priority Letter	Reducing the power and frequency of these flows can help maintain system stability and protect habitat for vulnerable species. Many nutrient reduction and water quality strategies also improve water retention	Yes	
DNR Priority Letter	High stream flows can have significant impacts on infrastructure, stream stability, water quality, and ecological function.	Yes	
City of Savage Water Resource Management Plan-Draft	Impact of Land Use Practices and Development on Water Resource Issues: Runoff volumes may be impacting the erosion potential within the Credit River	No	Credit River
City of Savage Water Resource Management Plan-Draft	Identification of Potential Problems which are Anticipated to Occur in the Next 20 Years Based on Growth Projections and Planned Urbanization: Increased flows to Credit River from development south of Savage	No	Credit River
Lower Minnesota River Watershed Streams Stressor Identification Report	Better manage the flow alteration in the headwaters of the watershed. This can be achieved by increasing the storage and infiltration of water in locations with flow alteration stressors.	No	Minnesota River
Kickoff Meeting	Excessive water runoff from the landscape - Ranked 2 of 8 for surface water concerns at Kickoff Meeting		
Kickoff Meeting	Locaitons of Conern: Water Storage		

Other Surface Water

RESPONSE LETTERS WATER PLANS REPORTS KICKOFF MEETING

Issue Source	Resource Issue	Priority Issue?	Specific Resource Identified
Kickoff Meeting	Surface Water - Ranked 3 of 5 (20%) of resouce concerns of prioritizing investments at Kickoff Meeting		
Kickoff Meeting	Locaitons of Conern: Spring lake		Spring Lake